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ORIGINAL ARTICLES.

LEPROSY IN AMERICA BEFORE THE ADVENT OF THE SPANIARDS AND THE NEGROES.

BY ALBERT S. ASHMEAD, M.D.

NEW YORK.

There seems to be some apparent authority for the existence of leprosy in Mexico and Peru, before the arrival of the Spaniards. Sahagan [1] says: "It was the custom in ancient Mexico that once in eight years they danced around the statue of Tlaloc. The performers were masked as animals, birds, laborers and sick men." Among the diseases personated by the latter, syphilis and lepra are named.

We find in the same author, a sentence of much more importance: "Those who have the disease of lepra generally lose their eyebrows and suffer great hunger. To cure them it will be necessary to give them a bath, two or three times, and when they come out of the bath, it will also be advisable to rub them with herbs and roots which have been first ground. Let them drink the water of a root called *texputli;* and if these remedies do no good, they must be cut off from the intercourse of the other people, lest they might infect them." While the symptoms here indicated, the falling eyebrows and the hunger, are common to both leprosy and syphilis, the remedies which are said to have effected the cure, would suggest syphilis rather than leprosy. The fact that the remedies failing to effect a cure, isolation was advised, would apply to both syphilis and leprosy.

At Sahagan's time, the Spaniards in America knew syphilis only as a new epidemic disease in Europe, and likening it to leprosy, must have deemed it contagious, as they thought leprosy was; they therefore isolated syphilitics, just as lepers had been for several centuries isolated in Europe.

Torquemada [2] speaks of "leprosos bubosos, and sarnosos," distinguishing, it seems, between leprosy and the two other diseases.

The use of the word, lepra, here, is just what proves to me that leprosy is not meant. For the Spaniards were more likely to speak of the disease which we call leprosy, as *mal de san lazaro* and call the lepers, *lazaros.* What they called lepra may have been simply a form of sarna, itch. Leprosy was exceedingly well known to the Spaniards, and if they had met with it in these new countries, would they not have spoken of it as the old scourge known for centuries in Europe?

Brinton [3] affirms that lepra does not mean in Spanish or in medical Latin, Oriental leprosy.

Dr. Manuel A. Muniz in "La Lepra en el Peru" [4] quotes Parra [5] as giving the name of the first notable Spaniard who contracted leprosy in Peru, Gonzales Ximenes de Quesada.[6] He remarks, which was hardly necessary, that the disease of which that Spaniard died, was established in Peru before the Spaniards came. According to this same Parra: "The favorite resort of this disease in America has been Old Columbia. (See note.) It never gained much of a foothold in Peru."

We may understand that the conquerors found here a disease which was not leprosy, the presence of which they would have signaled as that of a well-known European fact (for leprosy had been carried to Spain by the Roman soldiers and was common there in the tenth century), a species of itch new to them.

An important fact is that in those days, the Indians of the Pacific coast were not immune from the disease they called lepra, while they are to-day perfectly immune from leprosy. The Spanish monarchs issued a number of orders to have lepra hospitals founded for Indians, as well as Spaniards, and expressed their earnest wish that no village, either Spanish or Indian, should be without a hospital (see fourth law of the *Recopilacion de Indias*). Edition of Charles III.

Ulloa [7] who wrote about three hundred years after Columbus, says: "The Indians are vigorous and strong. Syphilis (lues) so common in those countries (Mexico and Peru) did not affect them much, and it is even rare to see any of them suffering from it. The cause of this difference is doubtless to be sought in the difference of their humors, which are but little susceptible of the virus of this disease."

He, then, while stating that the Indians do not catch the disease easily, yet assumes a degree of immunity from syphilis in them. We see here that the Indians, although very little affected by syphilis were yet not wholly immune, while it is known to-day that they are immune from leprosy. It was probably for some kind of bubosos or sarnosos that the Spanish monarchs ordered those hospitals built.

Syphilis is admitted to have existed in America before the arrival of the Spaniards. It is the disease most likely to be confounded with leprosy. In eastern Asia the two diseases are considered as being antagonistic; as one declines in a particular locality, the other prevails. This fact is patent in Europe; as soon as leprosy declined, syphilis prospered, which contributed to the confusion of the two diseases at the end of the fifteenth century.

Syphilis, when first inoculated in Europe, was very violent and widespread; then it gradually weakened

[1] Historia general de las Casas de Nueva Espana.
[2] Monarchia Indian.
[3] Personal Communication.
[4] La Cronica Medica, Nos. 28, 29, 31, 32, 1886.
[5] Ricardo Parra, of Bogota, Republic of Colombia. La Lepra (1850-1860.
[6] See Father Lucas Piedrahite: History of the Conquest and Discovery of the new Kingdom of Granada. See also Father Simon: Historical Notes of Piedro Firme.
[7] Voyage Hist. de la Amerique Menridionale, 1752.

NOTE.—It corresponds to the "New Kingdom of Granada," called afterwards the "Vice Kingdom of Santa Fe," which has formed to-day three Republics, Colombia, Venezuela and Ecuador. Cartagena of the Indies was a very ancient focus of lepra.

its hold and to-day it is comparatively mild, a circumstance which makes any confusion now with leprosy impossible.

The history of syphilis in eastern Asia is the same. There it has existed for over two thousand years, and it has gradually acquired in those races, by repeated inoculation, a mildness at which Europeans are surprised. When the Spaniards came to America it was at the time when Europeans were first receiving their inoculation of syphilis. If they brought it to America they must have communicated it to the Indians with the same degree of virulence as it had then in Europe. That they did not, that the form of the disease at that time was mild in the native Americans shows that they must have acquired, during a long reign of the disease, a considerable degree of immunity. If they had acquired that immunity, no confusion between leprosy and syphilis could occur in the minds of Spanish writers, who were well acquainted with leprosy in Europe; such a confusion was only possible in the most active stage of the evolution of syphilis in the Indian race. Therefore there can hardly be a doubt that when the Spaniards called something lepra, and not *mal de san lazaros*, they knew perfectly well what they were about. Now these writers have mentioned a disease which they called lepra. The word *teococoliztli*, which Brinton[8] tells me designated a disease well known in ancient Mexico, is translated in Spanish books as lepra. He states further: "In Maya apparently the same disease was called *uez;* it was contagious, and a species of itch. (See *Perez. Dict. Maya*). Torquemada says that the ancient Mexicans sacrificed lepers to the white maize god, Iztaccenteotl; this probably refers to progressive albinism."

Now on reference to the ancient dictionaries of the Maya, I find that *uez* is in Spanish, *una especie de sarna o' lepra*, a kind of itch or lepra, showing that the Spaniards understood this species of itch to be something different from leprosy. That they did so understand is shown by the meaning of the other Maya word *ueez*, which, in Spanish is *empeine o' lepra*, that is groin or lepra, showing that syphilis (bubas), was also included in the term, lepra. *Nanahuatl* is the ancient Mexican word for syphilis. But the Spanish writers in naming these various diseases, in their own language, use the terms lepra, bubas, sarna, for all of them, sometimes choosing the word lepra, sometimes sarna, at other times bubas.

On the Atlantic coast no confusion between syphilis and leprosy occurs. The authors of the Reports of the Hospital dos Lazaros,[9] Rio Janeiro, state definitely that the lazaros, who were undoubtedly lepers, date in Brazil from the advent of Europeans and negroes.

We read in the *Annals of Rio de Janeiro*, fifth volume, page 210 e. s., of Silva Lisboa, that "in the seventeenth or end of the sixteenth century, there appeared in Rio a disease called lepra (the word here used in its true sense), but which was commonly known under the name of *morphoea* or *mal de san lazaro*. It was attributed to the scurvy of the imported black, to the bad accommodation and food of the poor, to the immorality of women, and also to the dampness of the dwellings surrounded by marshes." Its appearance was, therefore, much before its appearance on the Pacific. Brazil had not come into full contact with the Europeans as early as Mexico and Peru.

Dr. Francisco G. Delgado[10] Secretary of the General Archives of the Indies at Seville, Spain, says that syphilis (venereo), or bubas, the latter being the most ancient name of the disease appeared at the same time on all the points occupied by the Spaniards in America. He can not say whether "the germ of leprosy and syphilis" (for it must be borne in mind that there was at that time a confusion of the two in Europe) was brought by the Spaniards infected in Italy, (see note), or whether it developed here through their contact with the Indians, or whether it had already been imported from some East Asiatic land. But he knows that in Mexico the bubas (*males venereos*) was known a few years after the Conquest, and that the hospitals (whose foundation was recommended by the kings) were really intended for syphilitics. The disease, bubas, was mentioned at about the same time in South America, that is in Peru and Rio de la Plata, and to it was attributed the death in 1527 of Don Pedro de Mendoza, the first conqueror and colonizer of Rio de la Plata. His death was attributed by the historians to the disease known as the French disease (*galico*). See fourth song of the Argentina, written by Basco de Centenera.

In the book entitled, "Fray Juan de Zermaragga, First Bishop and Archbishop of Mexico," a biographical and bibliographical study by Don Joaquin Garcia Izcabalzeta (Mexico, 1881), mention is made of a bubas hospital built by the said prelate.

Mention is also made of syphilis and not of lepra, in the Mexican bibliography of the sixteenth century, some details of which are taken from a work by Dr. Cardenas, printed in Mexico, 1591.

In "Diez Frayle," a work written in 1571, much is said about syphilis. In these books no mention is made of leprosy, not even of the disease which went by the name of lepra.

Dr. G. Armauer Hansen, of Bergen, Norway, writes me: "If leprosy had existed in America before the immigration of Spaniards, the disease ought to have been much more spread over the American continent than it really is. Leprosy being a contagious, or if you will, an inoculable disease, and the racial customs of the ancient inhabitants of America most probably not being characterized by cleanliness, the disease ought to have invaded a large part of the population." . . . "I have no clear idea," he says, "and nobody has, I believe, of the earlier intercourse between America and eastern Asia, but if there has been an immigration from Asia to America, I should think that it has taken place in the northern part, where the two countries are nearest each other, and that, in consequence, leprosy ought to have been spread among the North American Indians, to whom the disease, however, never has been known, as far as I know."

Dr. James E. Moore, of Barbadoes, West Indies, writes: "This island has never been inhabited by Spaniards; the Spaniards and Portuguese are said to have frequently visited it with a view of captur-

[8] Personal Communication.

[9] Hospital dos Lazaros, Reparticao annexa á Irmandade do Santissimo Sacramento da Freguezia Da Candelaria, Rio de Janeiro, 1893.

[10] Personal Communication.

NOTE.—Leprosy came to Italy sixty-two years before Christ, and appeared in Spain in the tenth century. It is not, therefore, easy to see why the disease should not have come directly from Spain with the followers of Columbus and afterwards with Cortez, Pizarro, Bilboa, etc. There were, probably, among the invading crowd a great number of soldiers who had served in the Italian wars, and who may have brought leprosy from Italy.

ing the Caribs, by whom it was then inhabited. This was previous to the year 1624, in which year it was settled by the English, and since which it has always been in their possession. The earliest account I can stumble over of leprosy in this island, is in a small book written by Wm. Hillary, M.D., 'Observations on the Changes of the Air and the Concomitant Epidemical Diseases in Barbadoes.' He says: 'This dreadful disease was first brought to this and the other sugar islands by the negroes from Africa, and is undoubtedly a native of that quarter of the world and Arabia, and is not originally of this western part. Neither was it ever known here before it was brought hither by the negroes.' This was written by him in 1772."

Dr. Enrique Robelin, who is an authority in Cuba, writes me: "American leprosy is an importation. The Indians did not know it before the arrival of the first conquerors. We may extend this statement to all the Antilles, Cuba included."

Brinton[11] never heard of leprosy in America either at or before the time of the Conquest. He also denies the introduction by migration of either arts, words or diseases from eastern Asia into America. "The current," he says, "was in the other direction. . . . When we study the earliest accounts of the explorers of Behring's Straits, we find they speak of American tribes (Eskimos) on the Asian side, but no Tschutsches on the American side. There was a trade between Siberic and Alaskan peoples, but no hint in historic times of a migration from Asia to America, and no archæologic evidence of it, that I know of, in prehistoric times."

Dr. Brinton further says: "Herrera[12] makes no mention of any such disease until seventy years after the discovery."

Muniz[13] says: "The first leper hospital in Peru was founded thirty and odd years after the foundation of Lima (Lima was founded by Pizarro in 1535), in the place now occupied by the Quarter of San Lazaro."

Leprosy was unknown in the highlands of Peru which were the abode of the Peruvian Indians. This we learn from Ulloa,[14] who wrote in 1797. Now the Quechuas and Aymaras were the main tribes established on that plateau; they were syphilitic three hundred years before Pizarro entered the empire of the Incas, and had become so probably a thousand years before, through contact between themselves. They had a common name for syphilis, *huanthi*, but none for leprosy. (See Tschudi, "Organismus der Khetsua—Sprache.")

Muniz, however, tells me that: "On the other side of the Andes there are, in Peru, regions truly tropical and mountainous. where lepra may have existed or may exist to-day." As to the occurrence of leprosy among the Incas he thinks that it is "almost sure." He seems to find a proof of this in pieces of pottery ("huacos") or articles of earth, though it is not clear to me in what manner. Leprosy, according to this author, may possibly have existed before the Conquest. He is inclined to believe that it did.

"Leprosy existed in Peru in the lower country," says Ulloa, "but was not rampant on the coast of terra firma." It propagates itself rather freely, and still more so in Habana. In those places they believe that it is caused by the quality of the pork which is there eaten abundantly, and that the fruit of a certain palm, called Royal, and which is also known as Palmiche, and is a favorite food for swine, aggravates the case. The flesh which has been fed by this food is richer in glandulæ than the normal flesh, these being of a black color, and being perceptible in the whole region of the neck. In spite of the popularity of this theory, we must consider as the chief cause of the origin of leprosy, the introduction of the African negroes, in whose country it is very old and very much at home."

We read in "La Lepra en el Peru," by Muniz[15]: "In spite of painstaking investigations, it is impossible to make a statistic study of leprosy in Peru. There is nothing to go upon. There are no registers, and those which we encounter are insufficient to serve as a basis for statistics. One fact, however, is certain. It is the decrease in the number of cases. Leprosy has been very hard on the black; all, or almost all, of the ancient inmates of the Refugio, and those who successively died, were emancipated negroes, the disease affecting the Indians rarely, and the whites still less."[16]

"At present all the lepers are Chinese, and their Society of Beneficence has undertaken to offer them an asylum in their hospital at Bellivista."

Dr. A. E. Edwards, of Antigua, West Indies, is of opinion that leprosy was introduced in that island by the African slaves. At any rate it is a fact that leprosy never was seen there outside of the black and colored population, with only one or two exceptions. Dr. Edwards knows of some Chinese cases imported into Antigua ten years ago. There is no history whatever of the Spaniards ever occupying this island. So the disease must be of African origin.

We may safely conclude, ourselves, from all these facts, that there was no leprosy in the native population of America; that that same population has known syphilis for centuries; that Spaniards coming across this new disease supposed it to be akin to leprosy and called it lepra, a word which afterward was wrongly believed to be synonymous with leprosy.

11 Personal Communication.
12 Historia general de las Indias.
13 Personal Communication.
14 Secret Memoirs of the Journey to South America.

15 Loc. cit.
16 The first negro came with Pizarro and was with "the thirteen" of the Isla del Gallo before the conquest. Already in 1536 there were maroon negroes in Peru. The king granted to Pizarro the privilege to import negroes from Africa.

YELLOW FEVER INOCULATION, LIKE BANQUO'S GHOST, WILL NOT DOWN.

BY J. McFADDEN GASTON, M.D.
ATLANTA, GA.

In the *Diario de Noticias*, of October 23, published iu Bahia, Brazil, there appears an article touching inoculation as a prophylactic against yellow fever. I have made a literal translation of it, and present it for the consideration of the medical profession in this country, without note or comment, as follows:

"In the International Congress of Hygiene and Demography, of Buda-Pesth, assembled inl ast September, the question of yellow fever was discussed and Dr. Miranda de Azevedo, a delegate from our government, presented to the distinguished assembly the report of our illustrious citizen, Dr. Domingos Freire, whose investigations upon the etiology and prophylaxis of this disease are well known.

"The Congress formed in this respect, the following conclusions:

"1. It is a fact attained for science, thanks to the labors of Prof. Domingos Freire, supported by many physicians of Brazil and by observers of other countries, that a microbe (*cryptococcus xanthogenicus Freire or bacteria de le Dantec*) is the active cause of yellow fever.

"This microbe is found in the blood of the patients, principally in the large blood vessels, and also in the parenchymatous tissues of the organs, where they form colonies more or less numerous.

"According to Professor Freire, it measures only one-thousandth part of a millimeter, reaching, however, a larger size in the liquid cultures, principally if they are heated from 37 to 40 degrees Cent., for many days. It executes very rapid movements, as noted by a large number of observers.

"Examined in the fresh state without being heated, this microbe presents a central clear point which is very characteristic. The microbe of yellow fever is readily colored by fuchsin or the methyl blue and violet. After heating, the central spot disappears entirely.

"Gelatin is liquified by it, and according to the experiments of Professor Freire, it is reproduced in spores.

"2. The microbe of yellow fever produces ptomaines which infect the organism. In accordance with the investigations of Prof. Domingos Freire, these alkaloids are formed at the expense of the albuminous matters of the body. He isolates two ptomaines of a liquid form and one gazeous. The sediment of black vomit, the blood of the sick, and the cultures of the microbes, contain these ptomaines.

"3. The experiments and studies, upon the preventive inoculations, of Professor Freire, against the yellow fever should be continued, as the best means of combating the existence and development of this disease.

"4. The therapeutic process which affords the most constant and the most beneficial results, according to the practice of Dr. Miranda de Azevedo, in various epidemics, is that of bichlorid of mercury, the salicylate of soda and napthol internally. Dr. Angelo Simoes, St. Paulo, has employed chlorin water with good effect. To stop the vomiting, and especially that of blood, the tincture of iodin has been given.

"5. The treatment with quinin should not be used, as it is almost always hurtful, and leads to vomiting.

"6. By employing the means recommended by hygiene, prophylaxis, disinfection and cleanliness of cities, there ought to disappear completely the active germs of yellow fever, as has already been accomplished in the city of Campinas, (State of S. Paulo, in Brazil).

"7. The yellow fever is not endemic in all parts of Brazil. It is only developed there when hygienic laws are not observed; as it can appear everywhere when the active microbe is transmitted and finds means of growth.

"9. The period of incubation does not generally exceed eight days. We should then condemn the vexatious and useless quarantine observed in Lisbon against ships coming from Brazil, principally when cases of disease are not verified in this country eight days prior to the departure of the vessels."

Blank Applications for membership in the ASSOCIATION, at the JOURNAL office.

THE DISEASE OF INEBRIETY.

ITS STUDY FROM THE STANDPOINT OF THE EXPERIENCE OF AMERICAN PHYSICIANS OF EMINENCE WHO HAVE WORKED IN THIS FIELD OF RESEARCH.

BY EDWARD C. MANN, M.D.
NEW YORK CITY.

(*Continued from page 826*).

CONFIRMED INEBRIATES.

I shall call the first class confirmed inebriates. I prefer the word, confirmed, to the more common term, habitual, for the reason that one may be in the *habit* of occasional or frequent intoxication, and yet not be so far established in the habit as to warrant the application of the term in its ordinary sense. How to care for this class, more than any other, is the problem that the civilized world is now endeavoring to solve and in which every household is immediately or remotely concerned. Confirmed inebriates constitute a considerable class of the community; they are as a rule, largely unproductive, and a necessary drain upon the resources of the people. What can be done for or with them? The first thought in this connection involves the idea of custody and restraint and this is always offensive to the intuitive love of freedom, which in this country especially, is the fountain impulse in every American breast. All our actions are influenced by this impulse, which is as native to our intellectual being as the capacity to breathe is to our physical nature. Yet the safety of the victim's family, the security of his estate, the peace of society and his own welfare, demand that his downward career must be arrested. How far his personal liberty may be restrained to accomplish this end is a delicate question; but perhaps there is no maxim more pertinent to the case than that of John Stuart Mill, who, when discussing the liberty of the subject says: "As soon as the liberty of the subject interferes with the general interest of the community, the liberty of the subject must be forfeited."

The most democratic government will allow that however sacred may be the rights of men individually, they are no more valuable to the individual than the rights of a community are to those who constitute it. A confirmed inebriate is one whose body is poisoned, and whose moral development is retarded. He is incapable of doing what, in his best moments his will prompts him to do, and hence may be dangerous to his family or neighbors as well as to himself. The interests of the community are thus interfered with, and it becomes the duty of the State to defend itself. Hence penal enactments have been adopted, with a view of protecting the community; but the error has been, as it seems to me, that society has overlooked the interest of the offending class. It deals with them simply as criminals, and offers them no aid to a better life. We need not go beyond our own country for proof to convince us that fines and imprisonment for a few hours or days are utterly useless, either as means of recovery or as a protection to society. On the other hand, the degradation and demoralization which are the essential sequelæ of such a course, lessen the chances for the improvement of the individual, and increase the danger and expense of the community, by increasing the liability to offense and criminal prosecution. Detention in asylums, or sanitariums, with appropriate work for body and mind, under prescription of medical offi-

cers, and a limited probationary trial before being finally discharged, would be the salvation of thousands of inebriates and a source of economy to the State. In many cases the detention might be permanent and it could be made more or less productive by the laboring classes. None would be more ready to accept such an alternative than those who are incurable and helpless, provided the odium and disgrace now attached to commitment and detention are removed, and the appliances for improvement and culture take the form of hospital treatment in place of penal retribution.

Class number two will now be considered:

EMOTIONAL INEBRIATES.

Those who without bad intentions or acute convictions of duty and responsibility, or established principles of right, give themselves to the promptings of impulse, and whom I shall denominate emotional inebriates. Emotion may disturb the processes of nutrition, and all the changes incident to the chemistry of life, while the *will* remains powerless and dismayed. Illustrations of this fact might be drawn from the various erratic displays of hysteria, and the strange effects of grief, joy, fear, etc., upon the visceral functions. We have all seen such cases and our experience must have taught us that the victims of emotional irregularity and excess are frequently the most wayward and difficult subjects we are called upon to treat. The same constitutional conditions which induce hysteria in some cases, induce in others the desire for alcoholic stimulants, and the susceptibility to the poison in such is frequently acute. It would be as wise in the one case as in the other, to attempt restoration by fines and imprisonment. Removal from disturbing associations to new and invigorating influences; restraining excessive development on one hand and stimulating feeble powers on the other, is the end to be sought in either case. It is equally true that in both there may be symptoms of violence, as exhibited in hysterical mania or in delirium tremens when such restraint will be temporarily necessary, as can not be judiciously had at home. Nothing is more common to practitioners of medicine than to witness such cases in private practice.

What are popularly known as nervous diseases interfere with domestic happiness and create discontent by their strange eccentricities which seem, at times, to exhaust the patience and even the sympathy of the fondest friends. The subjects of such disorders are, at times, unfit for the enjoyments and amenities of the social circle as they are disqualified in domestic life for its obligations and pleasures. They are frequently committed to asylums for the insane, as the most available remedy, although they do not strictly belong to the category of insanity. Inebriation is but another form of family sorrow and public annoyance; and as both conditions result from similar constitutional causes and are alike distinguished by eccentric and disturbing conduct, there seems to be no good reason why one should be the subject of scientific care and the other of fine and incarceration. If no such reason exists, it is submitted that special institutions are the best remedy for the emotional form of inebriety, where the enfeebled forces may be strengthened by exercise, and the tendency to excess be suppressed rather than restrained, by preventing as far as may be, the occurrence of emotional excitants.

ACCIDENTAL INEBRIATES.

The third class will be named accidental inebriates. Such are men of good principles and character who know and acknowledge their infirmity and endeavor to overcome it. Students, authors and over-worked business men furnish a considerable percentage of this class. Salesmen, also, of large mercantile houses, in the busy rivalry of trade and hospitable attentions to customers are led into the practice of drinking without being conscious of their weakness, till they discern that they are enticed into inebriety and know not how to escape. They are overcome by drink, as men are often overcome by eating immoderately. Colic, gastritis, apoplexy, death may be the consequence of excessive eating; and intoxication with all its resulting dangers of excess in drinking. And why one should be treated as a disease and the other punished as a crime, is among the anomalies of our civilization. If we would endeavor to study the conduct of men, in its relation to the common law which underlies and controls the vital processes, we would be more ready to see that an over-worked brain which reels from its balance into insanity, is alike responsible for the strain to which it has submitted itself, with another over-worked brain, which vainly seeks relief in the use of alcoholic stimulants, and finds, at last, that while it avoids the one evil it falls into another that is equally alarming, etc.

Whether our institutions are large or small, public or private, seems to me but of little importance, provided the means for classification and distinctive treatment are supplied. What these means should be is an important question.

We have denominated three classes; confirmed, emotional and accidental inebriates. It is fair to assume that a large proportion of the first class are beyond the reach of complete recovery, and that they need constant care and supervision in institutions which should be empowered to restrain and control when necessary.

The second or emotional class require rather an educational process, the end of which, as already stated, should be to equalize a disproportionate system and secure stability of character.

The third or accidental class furnishes a large proportion of cures, and should be provided with institution accommodations that are suitable for thoughtful and serious men. With such men convictions mean something; sorrow is real; effort is earnest; and a quiet persistent struggle with self and temptations is a warfare that must be sustained by associations of an elevated and invigorating character. If society would establish within given districts according to the population, asylums where the confirmed class should be kept under judicious restraint, they would, in my judgment react most favorably upon all other classes of drinking men, to urge them to the use of every available means to avoid in themselves the alternative of commitment and detention. These institutions should not be large but numerous; they should be brought as near to the people as possible, that the people may feel them to be what they really would be, an abiding reproof and warning. In addition, there should be homes or hospitals for the curable, which would be sought for and patronized by a large class of earnest and anxious persons. Economy would be thus insured and public health and morals improved. If crime and disease are as largely the result of intemperance as

is generally believed, it is evident that it is cheaper to detain the confirmed inebriate that he may not be in a position to become a criminal, and to treat the better class in hospitals, where they may have opportunity to recover and become productive with less risk of being burdensome to society and of continuing a diseased posterity.

Statistics seem to prove that crime and intemperance are concomitants of each other, and affect both the social and physical welfare of the people to an extent of which we have yet but an imperfect view. It can not, therefore, be otherwise than safe and economical in the State, to prevent the crime by detaining the confirmed inebriate under proper restraint, and curing the milder form of the disease in suitable and properly endowed institutions, that the effects of this terrible companionship may be modified in this, and largely prevented in the next generation.

The existence of such institutions would afford opportunity of studying the subject of inebriety, as it can be studied in no other way; and they would be instrumental in diminishing the demand for alcoholic and other narcotics, while public sentiment would of necessity become more enlightened, and results could then be secured which would do much to instruct the legislation of the country. As such institutions are multiplied and sustained by judicious legal authority, the public sentiment of the civilized world will approve and foster them.

Light is needed as to the nature of the alcoholic poison and its wonderful power of arresting and destroying vitality; and we should be encouraged to continue, and accumulate and disseminate light concerning this obscure and disastrous evil and the means for its treatment. Society owes much to the inebriate. It recognizes intoxicating beverages as legitimate articles of commerce. Government derives large revenues from their sale, and the law creates a monopoly of the traffic, under a license system, which is more potential for evil than any other adjunct of the government. Society is instrumental, by its defective sentiment and practice on this subject, in creating most of the disability under which the inebriate struggles. It takes from him his property, and in some instances destroys his citizenship, enters the domain of his domestic life, blights the source of family happiness and social prosperity, and then fines him for doing what it entices him to do, and imprisons him for violating a law which entraps his weak virtue, and makes him a victim to the cupidity of the state. To no other class does it mete out such singular inducements to evil, and to no other class does it award such unreasonable and offensive punishment. It may be said that the fault is not in the law or in public opinion, but in the individual. This is true in a large sense, but the fact must be borne in mind that among the results of our abnormal civilization is a generation of people with unusual susceptibilities to evil influences, and that as a consequence they seek abnormal means for supplying the intense demand that is made upon them under such a system. Hence the necessity for a jurisprudence that shall recognize the source of the evil and provide for the protection of those who are weak in will, in judgment or in moral sense.

I desire to call especial attention to the views of the two preceding gentlemen, Dr. Willard Parker and Dr. Joseph Parrish, as they were the pioneers of the scientific investigation and treatment of inebriety in America, Dr. Parrish having been the originator and master spirit of the "American Association for the Cure of Inebriates." The views of the late Dr. Theodore L. Mason, given below, are of especial interest as he has also passed away, leaving behind him the memory of good deeds, sterling worth and large experience in the field of inebriety. In his anniversary address in 1877 before the American Association for the Cure of Inebriates, of which he was at that time the President, he spoke as follows respecting inebriety as a disease. After stating that the objects of the Association, as set forth in the plan of organization adopted by them, were "to study the *disease* of inebriety, to discuss its proper treatment, and to endeavor to bring about a coöperative public sentiment and jurisprudence;" and that in 1870, at a meeting of the Association, a declaration of principles were unanimously adopted in which these postulates were enunciated: 1, "intemperance is a *disease;*" and 2, "it is curable in the same sense as other diseases are curable," Dr. Mason proceeded as follows: "The first of these principles, viz., 'That inebriety is a *disease*,' is the great fundamental principle upon which the oldest, best established, best known and most successful inebriate asylums in this country are based. The correctness of this principle has, however, in a few instances been denied. I propose to inquire in this paper, What inebriety is? Is it, as some persons affirm, always a *vice*, merely, or is it also a *disease?* May it not be in certain circumstances one of these, vice, and in other circumstances disease?

"1. What is the nature of the action of alcohol upon the human system?

"2. Does alcohol cause acute and chronic constitutional disease in the persons habitually using it?

"3. Is the diseased constitution thus caused transmissible to the offspring of the drinker?

"4. Is there evidence that family and national character and constitution may be degraded by the general use of alcohol?

"5. And, lastly, are these evils thus caused remediable, and how?

"A few remarks, may, perhaps, not improperly be here premised as to the character of the active agent, the substance upon the use of which in our own and in the insular and continental countries of Europe, inebriety chiefly depends—alcohol, in some of its varied forms. I do this more readily because of the indefinite and modified manner in which it is sometimes spoken of, even by intelligent physicians. That it is a poison all admit. But immediately upon this admission you will not unfrequently hear this qualifying remark: 'It is a poison when taken to excess;' or, 'it is good for the stomach, but becomes a poison when its effects are felt in the head.' Now this betrays a confusion of ideas, a lingering tendency to hold on to the exploded notions of the past, or an ignorance of the latest teachings of science for which we might find an apology in the jolly monks of the *schola salerniterna*, whose maxim as quoted by Duglinson was: "*Si nocturna tibi, noceat vini; Hoc tu mane vibes iterum et fuerit medicina*," but neither of which we think is, at this late day, worthy of intelligent medical men. We do not talk thus about arsenic, opium, atropin, Indian hemp or prussic acid, or any other vegetable or mineral poison. All of these, though poisonous, are of use, and have their places in the *armamenta medica*—

places which the modern practitioner would find it difficult to fill were they removed. They are all of great benefit to man as *remedies* for *disease*, but they are nevertheless indisputably poisonous. Just so, alcohol has its use in the treatment of disease, but it is a *poison to the normal and healthy man.*

"No intelligent person would say: 'A little arsenic or a little opium, or a little Indian hemp, or aconite, or atropin or prussic acid is a *nutriment*, and is of benefit to man in health and should be taken daily and regularly; but a little too much is a *poison*.' Why, then, suffer ourselves to think or speak thus of alcohol? No. Alcohol is never a *nutriment*, or fit for daily use. Alcohol is a *poison*, inherently, absolutely, essentially; in a drop or in a gill, in a pint or in a gallon, in all quantities and in every quantity it is a poison. Plainly, the quantity can not alter its chemic constitution. The chemic formula, $C_2 H_6 O$, expresses the relative proportion of the constituents in a teaspoonful or a gallon of *ethylic*, *dentilic*, or common alcohol; and Christison and many other authorities in materia medica have assigned its place among them as a narcotico-irritant poison."

Alcohol is supposed to have been discovered in the eleventh century of our era by an Arabian alchemist, Casa or Albricasis, a distinguished professor of the mystic art whose adepts were popularly supposed to be helped in their discoveries by the devil, the great enemy of man from the beginning; and verily, were I to judge from the results alone of *this* discovery, I should be strongly inclined to the popular belief, for surely I speak the words of truth and soberness when I declare that, since the transgression of our first parents "brought sin into the world and all our woe" no *single* discovery of man, in his persistent "seeking out of many inventions" has been fraught with such dire results to the moral and physical well-being of our race. The more than seven thousand members of the British Medical Association; the one hundred members of the AMERICAN MEDICAL ASSOCIATION, who met in 1877 in Chicago; the report made before the Section of Medicine of the Centennial Medical Convention in Philadelphia in 1876, composed of representative men from all parts of this country and from Europe, all concur substantially in this one opinion of the noxious effects of alcohol on those who indulge in its habitual use. To this testimony, so clear and full, in justice to our own members and as proof of the views held by them from the organization of this Association I feel constrained to add their evidence.

In a report of Dr. Earle, of the Washingtonian Home in Chicago, I find this description: "Alcoholic mania is the term we apply when, with impaired mental and physical condition, the man seems to have lost all will-power to do as he would. He would do right but he seems to have lost the power to do it. He makes the best of resolutions, calls the Divine Being to his help, but at the first opportunity falls." Is there no disease here? Is this man in a normal healthy condition? "Delirium tremens," he says, "is characterized by insomnia, hallucinations of the special senses, low delirium, with its consequent decreased mental vigor, and with increased digestive derangement." Does no disease exist in this case? Dr. Day, in his paper on "Inebriety and its Cure," read before the Suffolk District Medical Society in December, 1876, propounded this question: "Is there satisfactory proof of the existence of a disease called dipsomania? If so, can it be cured? I give an unhesitating answer in the affirmative." In his paper on "The Pathological Influence of Alcohol or the Nature of Inebriation," by Dr. N. S. Davis, in answer to the question: "Is inebriation really a crime (vice) or a disease?" and stating certain conditions in which to become inebriated was criminal, he says: "But that the appetite for alcoholic drinks and the state of inebriation are diseased conditions of certain organs or structures is susceptible of clearest demonstration." Dr. Wm. C. Wey, in his paper entitled, "Inebriety by Inheritance," says: "Inebriety being accepted as a physical disorder . . . it becomes us to look back in the train of morbid phenomena by which it has been fostered and developed, and endeavor to analyze its near and remote causes. Conspicuously in this connection comes the consideration of inherited tendency."

The testimony which I have thus brought before you is but a small portion of what is accessible, yet I trust it will be deemed sufficient to establish the proposition with which I began, that alcohol is a *poison*, producing in persons who use it habitually the disease of inebriety—a disease whose forms and features and diagnostic symptoms are quite well understood.

(To be continued.)

CELIO-HERNIOTOMY FOR IRREDUCIBLE INGUINAL OR FEMORAL HERNIA.

BY T. E. SCHUMPERT, M.D.
SHREVEPORT, LA.

There is, perhaps, no operation described within the pages of surgery that ought to be better understood by, or will present itself more certainly and imperatively to the general practitioner, at some time or other, during his professional career than this. An ovariotomy, nephrotomy, gastrotomy, hysterectomy, etc., can be postponed until a more suitable time, but a strangulated hernia demands immediate surgical procedure. I will admit that this operation as generally performed is not at all times easy; that there is danger of doing some vital injury, that the experienced operator, as well as the inexperienced, will at times find himself puzzled to know whether he is contending with the sac or the gut. The theory of cutting down on the hernia and being able to recognize the tissues, layer by layer, is altogether a delusion, and from the fact that it can not be done is calculated to discourage the man who expects to find them.

We do well, after adhesions are formed, to always recognize the sac. I have been at a loss more than once, after I had cut down on the sac, as I supposed, to know if my next stroke was being made in the right direction or not, and have been surprised quite as often to find that I had not reached the sac.

In recent hernia, where the sac is thin, and through some inflammatory process has become adherent to the omentum or gut, it is almost impossible to know positively in all cases when it is reached by any method I have ever seen, *i.e.*, save the one I am now about to describe. For the reason that so many operations have been devised for strangulated or irreducible hernia, and that a great majority of the profession have accepted no particular one, is but an evidence of the fact that none have exactly met the indications, that they are not altogether satisfactory.

Very nearly all operations for hernia are essentially the same; they differ, however, somewhat in detail. The sole object of the operation being: 1, the reduction of the tumor with as little damage to the parts as possible; and 2, a guarantee against its return. Dexterity in this operation is no less important than in all others where an anesthetic is administered, the patient's life, so far as the anesthetic is concerned, being jeopardized in proportion to the time he is kept under the anesthetic. The ordinary operation of herniotomy is begun by making an incision *over* the hernial tumor, and dividing the parts as carefully as possible until the sac is reached, which should be dissected out, cleared of its adhesions to the spermatic cord, emptied of its contents, a ligature thrown around its neck, and the wound sutured. Tnese are the essential features of all the operations, and it requires anywhere from one-half to an hour or more to perform it.

From the first indications above mentioned, the operation which I am now about to detail especially recommends itself, and for the second promises as good results as any, since the closure of the wound and after-treatment is that commonly employed.

The operator, standing at the patient's right, begins his incision in the abdominal parietes about two and one-half or three inches from neck of sac one-third the distance from the anterior superior spine of ilium to spine of pubes one-half inch, above and along the course of Poupart's ligament, and allows it to extend in the line of that usually made in herniotomy, from this given point to one-half inch beyond external abdominal ring, which implies the latter distance over the neck of the tumor. The incision, therefore, for celio-herniotomy must be made about three or three and one-half inches in length, the abdominal portion of this incision or the anterior two-thirds of initial incision is pursued in the same manner as in an oöphorectomy, until the peritoneal cavity is reached, after which the index finger of the left hand is inserted into the abdomen as a guide, with its tip in the ring, in neck of sac, between sac contents and ring; then with a pair of blunt-pointed scissors or a probe-pointed curved bistoury all tissues are divided until the constricting ring is reached, when if a bistoury is used it is inserted between the finger and ring and the cut is made upward; if scissors are used, however, the cut is made in line of the initial incision and in both cases until the constricting ring is felt to relax. The next step is to seize the hernial mass between the fingers, be it gut or omentum, and with a *vis a-fronte* to reduce it, which is easily done and without any danger of rupturing the gut in case it should be threatened with gangrene, as is the case when the force is applied from above.

After the reduction of tumor, the sac is easily and without danger dissected from its contiguous structures and its neck ligated or sutured as in the usual manner. The sac having been removed, the wound is closed by one of the several methods now in vogue, my preference being that employed by Bassini and Marcy, save in dealing with the cord, *i.e.*, after the aponeurosis of transversalis muscle has been sutured to the posterior aspect of Poupart's ligament, and the internal ring closed save just enough space to allow the exit of spermatic cord, using this newly formed wall as a background for the cord; I, instead, gently place the cord in my incision a few centimeters above the internal ring, after buttonholing the incision for the reception of the cord. Thereby I am allowed to close entirely this ring, which I do with double animal sutures. The cord is now removed entirely from its original habitat in the inguinal canal, save at the external ring, and placed over the aponeurosis of the oblique muscles, where it is incorporated by adipose and connective tissue covered by skin. Some may say there is danger of strangulation by the encroachment of muscular fibers or cicatricial tissue. But this has not proven so in any of my cases, five years having elapsed since the first operation and the patient is without the slightest varicosity or evidence of returning hernia. While this man is too aged to propagate the species, three others by their usual cleverness in this line have testified to the fact that the operation of celio-herniotomy is a complete failure for the production of sterility.

It is asserted by some of the most recent writers on this subject, that their chief object is the restoration of the obliquity of the inguinal canal; mine is the obliteration of this canal, and the formation of another in a locality where the tissues anatomically are better able to resist the etiology of hernia. The locality for the new ring I find to be just within the muscular fibers of the transversalis, a few centimeters above the internal ring. If the component elements of this cord or its anatomic relations have been predisposed to hernia in the first place, statistics go to prove that if left *in situ*, although nature has been greatly augmented by the skill and masterly work of Macewen, Bishop, Czerny, McBurney, Bassini, Marcy, and I might name many other meritorious workers in this field, it will have a tendency to again produce this trouble.

The subcutaneous implantation of the cord is not original with myself, but a product of the ingenious Halstead, however, if the formation of a new ring in a different locality has been used by others, it is without the knowledge of the writer. My operations are performed under the strictest aseptic and antiseptic precautions, realizing, as I do, the proneness of this locality to sepsis. This fact being assured the wound is closed without drainage.

I was called by Dr. D. M., a few days ago to see an old man, 76 years of age who had been suffering from a right oblique inguinal hernia for forty years. His vomit was stercoraceous, his expression excited and anxious, pulse quick and flashy with his arms and legs cold. On further examination, I found an irreducible scrotal hernia that extended half way to his knee, the ring very large and free. Efforts at reduction, by taxis to my surprise, without avail. On opening the abdomen and reducing the hernia according to my style, I found the hernial mass to be composed entirely of intestine that had assumed a pear shape, the sharp flexions at the base of which were bound firmly by adhesions which extended through the inner ring. The intestine was adherent to the sac, and the sac to the tunica vaginalis which on traction was everted, plainly showing the line of adhesion between intestine and sac, and made dissection easy. The adherent folds of intestine were themselves next severed and the intestine freed.

I am sure this operation was very much facilitated by the combination of celio- with herniotomy. This patient had never in his life worn a truss, but during the entire period had carried this mass in his scrotum. It would have been very difficult in this case, by any of the older methods, for even an experienced operator to have avoided wounding the vaginal tunic or even the gut. I have successfully performed this operation on two patients over 80 years of age, one male, the other female, the latter strangulated; have performed it in all, fourteen times, and twice under

most adverse circumstances. So far it has proven to be all that could be desired. Indeed, the operation is so simple, and the result offered so satisfactory, that when consulted, whether the hernia be reducible or irreducible, I advise an operation. I believe this is the advice of every surgeon of the present day who has given this subject the deserved amount of thought.

RECAPITULATION.

This operation offers, first, as an advantage over others, its comparative innocence from danger. It also offers the advantage of from several minutes to an hour or more in time, upon which fact, alone, may depend the final good result. It places herniotomy within the reach of the most clumsy and inexperienced operator. The gut or hernial mass falls within a better field for inspection. I close the external ring, save just enough space at its inferior inner angle for the escape of the cord; close the canal after the Bassini-Marcy style, save the internal ring which is closed entirely; buttonhole the transversalis incision just above the inner ring, to form a new ring and prevent the tension of sutures; and place the cord between the integument and the external oblique.

THE TREATMENT OF DOUBLE FRACTURE OF LOWER JAW BY ANGLE'S FRACTURE BANDS, WITH REPORT OF CASE.

BY W. E. GAMBLE, B.S., M.D.

CHICAGO.

Mr. E. N., aged 40, was referred to me by O. A. King, D.D.S., of this city, July 4, 1894, for treatment of double fracture of lower jaw, the line of fracture on right side extending from third molar through angle of jaw (Fig. 1, *x*). Third molar, being loose, was extracted. The fracture on left side was between left lateral incisor and left cuspid (Fig. 1, *y*). The fragment was displaced one-half inch below level of teeth. By direct pressure the fragment was adjusted to its normal place. To keep it there was the problem. A roller bandage was placed the full length of fragment on the under surface of jaw, over which a four-tailed bandage was applied, secured by sewing the bandage carefully.

July 5. Fragment displaced as before. Wiring the jaw was advised, but the patient desired all other means to be tried first. A leather chin cup supported by plaster-of-Paris cast was put on.

July 6. Fragment displaced. I called Dr. A. J. Ochsner who, in addition to chin cup and plaster of-Paris cast, adjusted a well fitting gutta-percha interdental splint. The Doctor carefully and skilfully applied the dressing.

July 7. Fragment dislocated as before. Further attempt at treatment by splints was abandoned. Dr. Ochsner with my assistance wired the fragment on left side. It seemed unnecessary to wire right fragments. They were not wired. A light plaster-of-Paris dressing was applied to support the jaw.

July 13. Facial erysipelas developed in region of wound, gradually involving face and scalp.

July 21. Fragment slightly dislocated. Region of fracture seat of abscess. Soft tissue swollen to such an extent that the wire suture could not be supported by external splints.

From July 20 to July 31 displacement gradually increased; at the latter date it was two-thirds as great as the original deformity. The wire had evidently cut through the spongy bone a distance equal to the amount of displacement. Had not the process of repair been delayed by the intercurrent disease the wiring would probably have been successful in retaining the displaced fragment. The wiring had not only proved a failure, but it had been a source of injury; the ends of the wire had lacerated the lower lip and tongue. Pus followed the wire, resulting in abscess forming in region of wiring. The lateral incisor (left) and left cuspid became loosened, necessitating the removal of incisor.

Owing to the precarious condition of the patient, resulting from the erysipelas, in addition to the local condition of ends of fragments and the soft tissue about them, a further attempt at wiring was considered not advisable. The fragments must be adjusted and held in place, or a frightful deformity would result. The only fixed surface remaining untried to which this large fragment could be anchored was the upper jaw. The difficulty was to get a fixed point or points on teeth of displaced fragment and opposing teeth of upper jaw to which silk or wire could be attached and the fragment held in place until repair had taken place. At my request, Dr. King kindly visited the Wilmington Dental Manufacturing Company of this city to find, if possible, a band attachment already made to be used in this case. Dr. Angle's fracture bands (Fig. 2) were secured. With Dr. King's assistance a band was placed around the two central incisors of fragment, and to left central incisor of upper jaw (Fig. 1). Little difficulty was encountered in getting bands well adjusted. By burnishing the band accurately to the tooth and tightening the nut until the band is

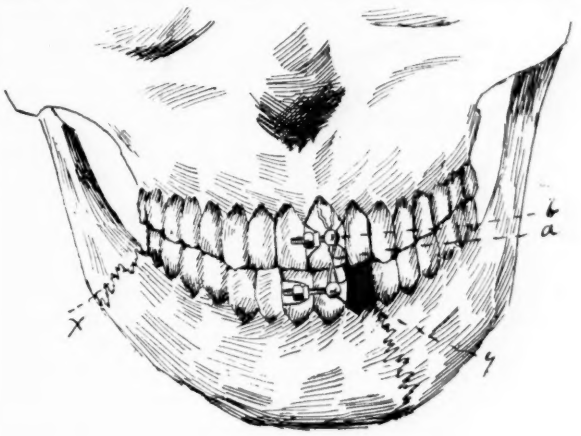


Fig 1

firm, there is but little danger of the band slipping. Floss silk, well waxed, was used about the buttons (Fig. 1, *b*), in the manner of a figure 8. (See Fig. 1, *a*.) The fragments were firmly held in place by this means for six weeks, when repair had taken place with result quite satisfactory.

This case emphasizes the fact that the universal custom of wiring the fragments of a double fracture of the lower jaw where there is much displacement is not the only practical method of treatment. Dr. E. H. Angle has furnished the profession with a perfect instrument for attaching the fragment to upper jaw. These bands are made in different sizes. With care and patience the surgeon can adjust them to the teeth. The teeth can be separated by introducing between them small wedges of orange wood or other hard wood, driven in by a small hammer or handle

Fig 2

knife, etc. A simpler method is to separate by means of rubber. A piece of rubber of the following dimensions, 15 mm. x 2 mm. x 2 mm., is stretched to such an extent that it can be pushed between the teeth. Its contraction gradually separates them. Fifteen or twenty minutes is required by the method to separate the teeth sufficiently for bands to be applied. The bands may be made doubly secure by cementing.

The simplicity of this method, requiring no anesthetic, no destruction of tissue, no trained assistant, as compared with the bloody, tissue-destroying operation of wiring the fragments, should cause the surgeon to give it consideration in cases in which both

the fragments and the opposing upper jaw are not toothless.

There are no sequelæ as a direct result of treatment, as often follow wiring; abscesses of tissue, loosened teeth and loosened alveolar process.

In fixing opposing molars or bicuspids, Dr. Angle makes use of a rod (Fig. 3, *c*), one end of which is bent to a right angle; this is hooked into an attachment on one band (Fig. 3, *e*). The other end of rod is thrust through a pipe in other band. The rod is held and its length adjusted by a nut (Fig. 3, *d*)

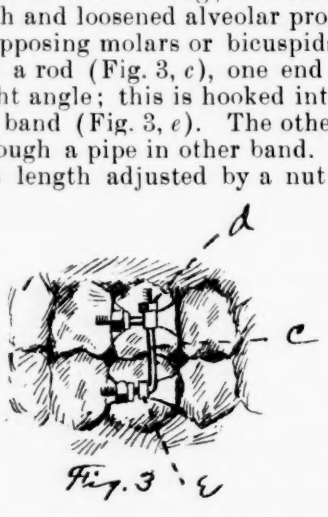


Fig. 3.

This rod can be much more easily adjusted in this region than silk or wire, the cheek being in the way.

The articulation of the teeth differs widely in different individuals. The upper cusps and incisors usually project slightly over the lower ones; occasionally the cusps and incisors of lower jaw project farther in front than the upper ones; owing to this diversity in articulation of these teeth, silk floss, well waxed, can better hold them in proper place than the rod or any less flexible material.

264 S. Halsted Street.

MALIGNANT DISEASE OF THE OVARY; REPORT OF CASES.

Read before the Worcester, Mass., Medical Association, Oct. 10, 1894.

BY HOMER GAGE, A.M. M.D.
WORCESTER, MASS.

I trust you will pardon me for asking your attention to a subject which may seem of but little practical importance, and is interesting mainly because it is so rarely met with. I have ventured to report these cases of malignant disease affecting the ovaries, because they present some features of unusual clinical interest and because they will serve very well to introduce the subject of ovarian pathology, about which there seems to be so much confusion.

I think no one who has attempted to do much pelvic surgery himself, or has tried to study pelvic surgery from the medical periodicals or in society transactions, can fail to be impressed with the want of exact knowledge of the various conditions which may be met with in the normal ovary, and with the want of a generally accepted scientific standard, in accordance with which the departures from the normal may be recognized and properly classified. The confusion has been made much worse by the tendency of modern surgery to remove the ovaries upon every slightest pretext, and then to examine them with a determination to find something which should justifiy the mutilation. The more accurate knowledge which will dispel this confusion must come, step by step, each step perhaps contributed by a different observer.

Can not we, with the increasing clinical opportunities that are being constantly afforded, contribute something toward the establishment of one of those steps? In the hope, then, of awakening some interest in this subject, I submit these few cases, asking you to remember that nearly all of them occurred among my earliest operations, and that the reports are far from being as full or as accurate as I should like to have them.

The relative frequency of malignant tumors of the ovary is as yet undetermined. Reliable statistics on this point are still too few to furnish any positive data. Cohn's report of 100 cases occurring in Schroeder's clinics, is still the largest number reported, and this list has been reduced by Butlin to 55, by the exclusion of doubtful and unoperated cases. That would be about 8 per cent. of all cases observed during the period covered by his report. Olshausen, grouping all solid tumors together, believes that they represent about 5 per cent. of all new growths of the ovary, and further, characterizes almost all of these as malignant. In Homan's series of 384 laparotomies, there were 7 cases of undoubted malignant disease of the ovaries, but there were 8 other cases in which after removal of the ovarian tumor the patient had died from the appearance of malignant disease eleswhere. The presence of malignant disease at the time of or following the removal of an ovarian cyst, in itself of benign appearance, has also been noted by other observers, and is relatively so common as to make it seem more than a mere coincidence. I have, myself, had one such case which is, I think, of sufficient interest to warrant a brief report:

Mrs. H., 53 years old, had been married thirteen years; had never been pregnant; menopause four years ago. Two of her aunts had died of internal cancer, and her father had died of cancer of the face. She had been failing in health for a year; had been suffering from abdominal pain, vomiting and distress after eating, with marked loss of flesh and strength. Five months ago had observed abdominal swelling, which had yielded to medical treatment, but had quickly re-appeared with return of intense pain and constant vomiting. She was entirely confined to the bed. Her abdomen was immensely distended, somewhat tender, transmitted wave of fluctuation readily, was dull over the lower half, resonant in both flanks. I operated on May 6, 1892. On the morning of the operation, her pulse was very small and feeble, 130; extremities cold and moist; had been vomiting all night, a dark greenish fluid in large quantities. She appeared to be *in extremis*, and I certainly expected that she would die during the operation. On opening the abdomen, about three quarts of clear straw-colored fluid of a slightly viscid consistency were evacuated, and a cyst of the right ovary, about eight inches in diameter exposed. It contained a dark thick fluid, was unilocular, and presented only loose adhesions to the rectum and pelvic floor. It was quickly removed, and to my surprise she rallied well from the ether. Pain and vomiting ceased, and at the end of ten days she could be carried to a lounge in the adjoining room and seemed to be gaining steadily. About four weeks after the operation, pain and vomiting and abdominal swelling reappeared, and on June 22, seven weeks after the operation she died. For the following very careful and accurate account of the tumor and of the conditions presented by the *post mortem* examination I am indebted to Dr. W. S. Miller, now of the University of Wisconsin:

"The growth was a large cyst, for the most part smooth, but here and there a warty nodule was seen projecting into the cavity of the cyst. About the pedicle the walls were thickened and the nodules were more numerous. I examined portions of all these places, *i.e.*, the thin wall of the cyst, the nodules and the thickened wall about the pedicle. The thin wall of the cyst proved to be that of an ordinary cyst of the ovary; the nodules were simple papillary growths on the wall of the cyst, and the thickened wall of the part about the pedicle showed nothing malignant. The wall was

thickened and the papillary growths more numerous. I remember feeling quite chagrined at the autopsy to find a malignant growth when I had reported on the case as being non-malignant, but I could not then. and I do not now, see anything in the sections to warrant a diagnosis other than papilloma of the ovary.

"At the autopsy a large accumulation of fluid was found in the abdomen, about a pail and a half in all being removed. The entire abdominal cavity was filled with secondary growths of cancer, and in the pelvis all the organs were so firmly matted together that they were almost indistinguishable. This growth in the pelvis seemed to take its origin from the stump of the ovary, but it had none of the appearance of a primary growth. As you noted at the end of your notes, the primary disease was in the pancreas, and the growth in the pelvis seemed to be an implantation on the stump of the cyst."

The tumor was a papillary cystoma, a form of new growth generally classified as non-malignant, except when the papillæ themselves are the seat of cancerous infiltration, and all the cases of this kind are excluded by Butlin from the reports of Cohn and others, in his consideration of the relative frequency and results of malignant disease of the ovary. In the case here presented it would be necessary, to conform to this view, to suppose that the cyst was an accidental complication of the disease of the stomach and pancreas, entirely independent of it, and that the cancerous condition of the stump was not in the nature of a recurrence but was a secondary chance implantation of the disease in this locality. It seems to me that a much simpler and more natural explanation, more in conformity with our knowledge of the history of malignant diseases elsewhere, is to assume that there was something malignant in the cyst itself. These papillary tumors do give rise to metastases, parasitic in their formation to be sure, but very different from anything that we observe in the history of benign tumors. Pozzi, in his late treatise on gynecology, calls attention to the greater degree of malignancy of papillary cystomata, the uncertainty as to what part of the ovary they grow from, and calls for further and more careful investigation of this question. I have not time here to enter into any exhaustive study of the question, but present it to you as one of the unsolved problems of ovarian pathology. Should their malignancy be established, as seems to be conceded by Greig Smith, the proportion of malignant to benign tumors of the ovary must be much larger than is stated by Olshausen.

There is very little in the clinical history or physical examination of ovarian tumors to suggest their malignancy. Ascites is commonly found in connection with both sarcoma and carcinoma, and is relatively infrequent as a complication of benign tumors. Its presence must, therefore, always be regarded with suspicion. This suspicion is further strengthened by the existence of disease in both ovaries at the same time, especially if the tumors are hard, smooth and freely movable; and by a history of rapid growth. It would seem as if, contrary to the general rule, malignancy was relatively more common in tumors appearing in early life. Of seventy-seven cases of carcinoma collected by Leopold, twenty-seven occurred between the ages of 8 and 30, most of them about 20 years, and in thirty-seven cases of ovarian sarcoma collected by Olshausen, fourteen were in patients under 30 years old. It has been suggested therefore, that malignant disease is to be looked for often about the age of puberty and again at the beginning of senile atrophy. Pain in the tumor itself is not often observed; the pain from peritoneal irritation is more common from the solid than from the cystic tumors.

The great majority of all solid tumors of the ovary are malignant. The malignancy of a cystic growth can be determined only after its removal. In the latter states, the presence of a well marked cachexia, of enlarged glands in the groins, or of other visceral metastases is of vital importance.

In connection with this question of diagnosis, allow me to present the history of a case in which the clinical signs are perfectly characteristic of malignancy, while the microscopic appearances seem to point with equal force against it. The case illustrates again, how indefinite and unsatisfactory is our knowledge:

Miss A. S., 30 years old, was referred to me in October, 1891, by Dr. J. R. Lincoln, of Millbury. She had not been well for two years; had complained constantly of pain in her back and hips, more severe in the right, and frequently making it impossible for her to work. It had been growing much worse for the past four months and for eight weeks she had been unable to work at all. Catamenia were regular, of normal amount, and unattended by pain, except on the first day. The abdomen presented neither general nor local distension, was everywhere tympanitic, but was very sensitive to pressure in the right iliac region, which was occupied by a hard irregular mass, apparently beginning at a point one inch above the level of the anterior superior spine, and extending downward into the pelvis, and laterally to the median line. Per vaginam, the uterine body seemed crowded to the left, while on the right and behind could be felt this same hard irregular mass. On opening the abdomen, both ovaries were found very much enlarged, about the size of a small peach, of a hard firm consistency and non-adherent. These were removed as were also two enlarged mesenteric glands. The large mass on the right side was found to consist of a hard bunch occupying the cecum and its mesentery, which rested upon and had moved with the right ovary. The surface of this bunch was smooth, translucent and entirely free from adhesions. Its removal was not attempted. The patient recovered from the operation, but failed gradually in health, became very much emaciated, and although no signs of pulmonary disease were manifested, died in September, 1892, ten months after the operation. The bunch on the right side remained practically unchanged, and a second bunch developed upon the left. Although no autopsy was permitted, there can be no doubt but that she died of malignant disease of the abdomen. I felt very confident that the tumor of the cecum, the bilateral ovarian tumors and the enlarged lymphatic glands would present evidences of the same malignant infection. Upon microscopic examination by Dr. Miller, however, the ovaries and glands were pronounced pure adenoma.

It is unfortunate that in this case the specimens have not been preserved, but they were examined very carefully by Dr. Miller and a typical section was mounted by him, which has been examined by Dr. Baker and Dr. Mallory of the Harvard Medical School, both of whom have confirmed Dr. Miller's report. Ican not, however, in any way reconcile the report with the clinical history, and am the more inclined to doubt our correct interpretation of the microscopic appearances, inasmuch as Olshausen and Bland Sutton both state that pure adenoma always appears as a cystoma, and Pozzi fails to notice adenoma as one of the solid tumors of the ovary. Neither of these specimens presented the gross appearances of cystic disease.

There is no treatment applicable to malignant tumors of the ovary except removal, and the operative technique is in no way different from that employed in common forms of cystic disease. The results of operative interference are, however, important and of sufficient interest to warrant a brief review. Butlin has collected ninety-nine cases from the reports of Cohn, Olshausen, Billroth and Thornton. Of these,

thirty-three died from causes directly attributable to the operation, "a very large mortality when compared with the general statistics of ovariotomy." Two of the three cases of sarcoma removed by Homans died from the effects of the operation. It is evident, therefore, that the removal of malignant tumors is attended with far greater risks than the removal of benign ovarian cysts. The subsequent history of those who recover is equally discouraging; only five out of forty-seven patients whose cases could be followed, were alive and well at the end of three years. In the only one of Thornton's cases that remained well three years, the woman had borne a child two years after the operation, and of this he says: "No case could have looked more hopeless than this one did, and the tumor was of a kind in which one would have feared early recurrence." Although there is but little encouragement to be derived from these results, we may, I think, at least go as far as Butlin, in concluding that "the reasons for attempting to remove malignant ovarian tumors are as strong as those which lead surgeons to operate for malignant disease in most other parts of the body."

To this summary, allow me to add two cases from my own series of operations. Both were sarcoma. One is alive and well now, more than five years since the operation. The other died ten months after the operation, and I present her case with the report of the autopsy:

Case 1.—F. S., age 15½ years; works in a shoe shop; came under my observation in March, 1889; maternal grandmother died of cancer of the breast; catamenia appeared at 14, very irregular, not painful, flow considerable in amount, lasting one week; during the winter had noticed that bowels were hard and swollen, and in February accidentally discovered for the first time a hard bunch in the lower part of the abdomen. On February 18, she came home from work with her feet and clothes wet, and complained of not feeling well. The catamenia were due and came on that night with much pain, headache and general malaise. During the next three weeks, she had a temperature ranging from 99 to 102, much local tenderness over the area of the tumor, with abdominal pain; catamenia continued profusely until March 2. She was pale, very thin, had no appetite, could not sleep and felt weak and languid. There was no nausea, no vomiting, and no difficulty about micturition; bowels inclined to be loose.

Filling the right iliac region, extending upward to the level of the umbilicus, and across into and occupying the greater part of the left side, was a hard, elastic, non-fluctuating tumor, slightly movable, with a deep pelvic attachment. It was irregular in outline, and on its anterior surface was a soft sausage-shaped mass freely movable upon it, which felt as if it might be a loop of intestine. The tumor so filled the pelvis that the vagina seemed very small indeed. The cervix could be indistinctly felt high up behind the pubes; the body of the uterus could not be recognized. Although impossible to move it much, the mass could be lifted slightly from below. There was no ascites.

On opening the abdomen on March 16, the movable mass on the anterior surface of the tumor was found to be the uterus, not enlarged, but dragged up out of the pelvis, until the upper border was on the line of the umbilicus. Beneath it and the broad ligaments lay the tumor, irregular in outline, filling the pelvis and everywhere adherent. The adhesions were for the most part soft, friable and easily separated except at the bottom of the pelvis, where they were so tough as to fix the mass firmly, not only to the pelvic floor, but also to the wall of the rectum. Although for the most part of a dense firm consistency, there was an area as large as a 50-cent piece on its upper surface which was semi-fluciuating; no fluid could be withdrawn by trocar, but on enlarging the puncture a small amount of thin fluid and a good deal of soft granular detritus was removed and the size of the mass was sensibly diminished. It proved to have its origin in the right ovary, and a pedicle was secured from the right broad ligament. The patient made a slow, tedious recovery, and suffered from well marked hysterical manifestations, convulsions, etc., for several months. Her recovery, however, was finally complete, she became a clerk in a drygoods store and afterwards married. She has remained well up to the present time.

This was my first laparotomy, and had it not been for the skilful and patient assistance of my father, the result, I am sure, would have been far less satisfactory. To his help and encouragement, I owe not only the favorable result in this case, but also whatever measure of success I have obtained in surgery.

The specimen was a somewhat irregularly shaped nodular tumor, of rather firm consistency, weighing about two pounds. On section, it presented numerous small cysts containing clear thin fluid, imbedded in a fibrous stroma which was for the most part dense and firm. Over a considerable area, however, it was much softer and more vascular. The microscopic examination was made by Dr. E. V. Scribner, who was at that time the pathologist to the Memorial Hospital. He reported that it presented the typical appearance of a round-celled sarcoma of the ovary.

Case 2.—Mrs. F., 64 years old, a widow, was referred to me by Dr. D. B. Lovell, in October, 1893. Her mother died of cancer at the age of 78. Her father and two sisters had died of consumption. She was married at 25; and had three children and two miscarriages. Catamenia were always regular and not painful, and had ceased when she was 42 years old. Two years ago she first noticed an abdominal swelling which would, however, at times disappear. Eighteen months ago had considerable pain in the right upper quadrant of abdomen, and soon after was laid up three months with pain across lower part of bowels. Remained well then until last March, when the same trouble returned, and she has not been well since. For two months past has noticed progressive increase in size of abdomen.

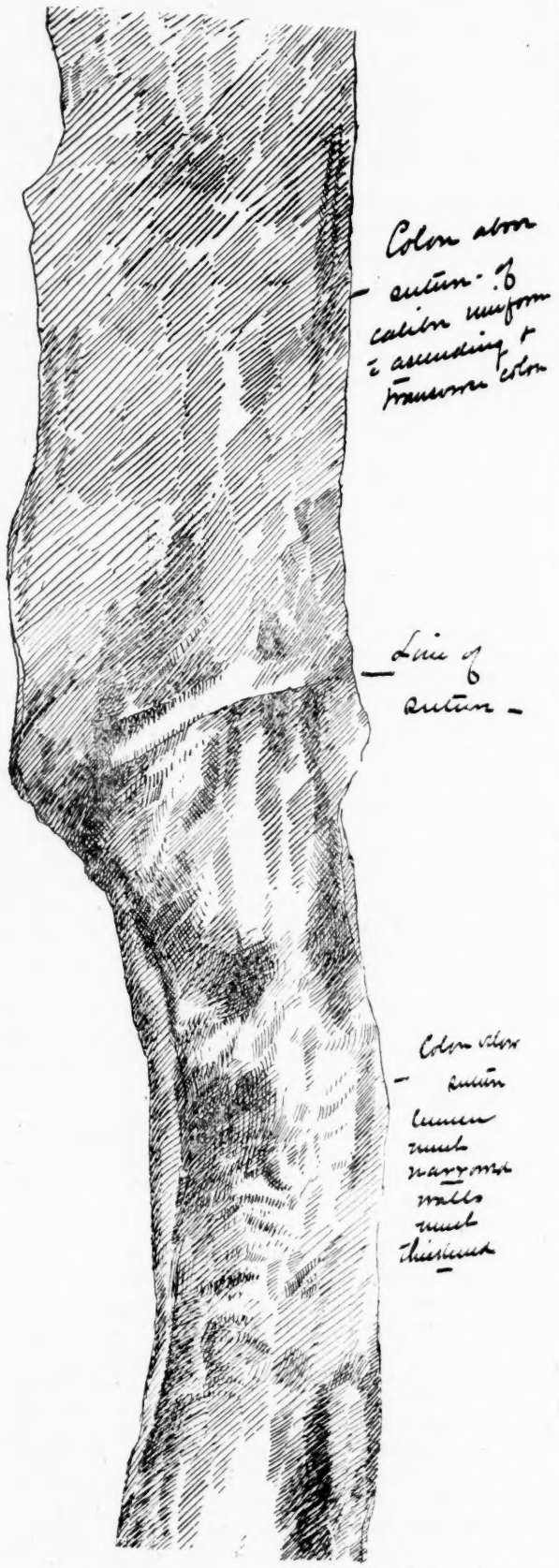
She was well developed and well nourished, weight 160 pounds, girth of chest thirty-seven inches, of abdomen forty-two; heart sounds normal, slight dullness with a few moist râles at both bases behind. The abdomen was evenly distended, tympanitic over the upper part, flat at the side and dull in front from two inches above the umbilicus. Palpation negative at sides, fluctuant in front, and tender everywhere, especially in the left lower quadrant. There was a small umbilical hernia, its contents fluid. Vaginal examination revealed cervix high up behind pubes, posterior vagina wall bulging and fluctuating.

On opening the abdomen, two quarts of pale straw-colored fluid evacuated, revealing a large, solid tumor, occupying nearly one-half the abdominal cavity, with tough fibrous adhesions to the omentum, small intestines and to the descending colon. In separating the adhesions to the small intestines, bits of the peritoneal investment of the tumor were left upon the intestinal walls. In separating it from the descending colon, the colon was accidentally injured so that it was necessary to resect about one and one-half inches just above the sigmoid flexure. The tumor was removed without further difficulty and proved to have originated from the left ovary. The divided ends of the colon were united by three rows of buried silk sutures.

The patient rallied well from the operation, and showed no signs of any general peritoneal infection. On the following day she had some bloody discharge from the rectum, but at the end of a week had a natural movement of the bowels. There was for some time a slight purulent discharge from the abdominal drainage tube which was offensive but at no time feculent in character. When this discharge ceased, there began to be a purulent discharge from the rectum, which continued for two or three weeks. I think there was a localized abscess around the stump of the tumor, which discharged through the rectum, giving rise to the dense pelvic adhesions and to the thickening of the rectal walls, and narrowing of its lumen. The region of the sutured colon seemed to be free from any involvement in this process, as is shown in the accompanying drawing. Mrs. F. gained strength very slowly until in January she became deeply jaundiced, and from that time failed steadily though very gradually. The enlargement of the liver was felt first in July and she died on August 13, ten months after the operation.

The following account of the *post-mortem* appear-

ances is taken from the notes of Dr. Baker, who performed the autopsy, and to it I append his description of the microscopic appearances of the tumor and its metastases:



The abdomen contained about four quarts of bile-stained serous fluid, having a specific gravity of 1021. The intestines were everywhere firmly matted together and distorted, especially near the pelvis. About midway of the descending colon, after much trouble in freeing it from old adhesions, was found the site of an intestinal resection. Below it was a slight dilation of the gut, and at the point of the suturing was a slight ridge of mucous membrane, extending around the lumen. Externally, the point of union could not be recognized. Two silk sutures were discovered, in no way changed during ten months. All the pelvic organs were matted together in one inseparable mass; inguinal glands not enlarged and no recurrence visible in the pelvis.

The liver weighed four pounds and fourteen ounces. It presented numerous nodules from the size of a pea to that of a hen's egg, especially about the lower border of the right lobe, but also scattered over the other lobes. These were reddish white, rather firm and dense. The liver is markedly fatty, and in and across the bile-stained section shows numerous nodules scattered throughout the organ. The gall bladder was not involved. Similar metastatic nodules were, however, found in the lungs, scattered over the parietal peritoneum, and in the mesenteric glands.

The specimen removed was a grayish, opaque tumor, weighing five pounds, of rather soft consistency. On section were found numerous cysts varying in size from that of a hazel-nut to that of one just visible to the unaided eye, filled with a transparent tenacious fluid. Microscopic examination showed it to be made up mainly of small round cells, in places spindle-shaped, imbedded in a homogeneous intercellular substance. It was exceedingly vascular. Sections made from the lung and liver showed the same characteristics, except that they were of firmer consistency. Diagnosis: Sarcoma with metastatic nodules in liver, lungs and peritoneum.

A CASE OF RAYNAUD'S DISEASE.

BY WM. F. BATMAN, M.D.

LADOGA, IND.

A vascular disorder, probably dependent upon vasomotor influences, characterized by three grades of intensity.

Depew H., son of a physician; age 34; dark hair; gray eyes; height five feet six inches; weight 120 pounds. He is of a neuro-phlegmatic temperament. By avocation a farmer. His father a hale old man at 70; his mother in good health at 66. Had some uncles on the fraternal side who died with pulmonary tuberculosis, but no other hereditary disease traceable on either side. Had typhoid fever nine years ago, but so far as he knows fully recovered. Had the influenza three successive years, 1890, 1891 and 1892, and had tardy convalescence with each attack.

He first noticed these symptoms three years ago, which have gradually increased and affect the middle or ring finger of the right hand which, with the appearance of winter, is hyper-sensitive to cold, and with slight exposure feels numb and cold and then, when reaction takes place and the whole end of the finger gets congested, looks red and full of blood and tingles for hours. This condition is repeated, in fact, always present on exposure during the winter months. One peculiarity of this disease is the absence of the symptoms in the summer time. The patient did not have any symptoms for two months the past summer. Hare's "System of Therapeutics" and Osler's "Practice of Medicine" both give as a remarkable concomitant symptom, hemoglobinuria, which may develop during an attack or may take the place of an outbreak. This appeared plainly in this patient last

winter, and promptly with the cold weather of the past two weeks. Professor Osler, one of our greatest clinicians, says he has seen very few cases, and divides the progress of the disease into three stages, viz., local syncope, local asphyxia and local gangrene.

Treatment is, unfortunately, not very favorable, so far as a permanent cure is concerned. A course of nux vomica, iron and quinin greatly benefited my patient and he is able to pursue his work, but if he strikes his finger when cold, the pain is excruciating.

Professor Osler says the pain is so severe at times as to require an anodyne. In the severer forms, when threatened with gangrene, wrap the extremity in wool and elevate it. Carefully applied, systematic massage of the extremities is sometimes of benefit. Barlow advises immersing the affected limb in salt water, and placing one electrode over the spine, and the other in the water.

CHLORATE OF POTASH POISONING, WITH REPORT OF A CASE.

BY J. T. McSHANE, M.D.

INDIANAPOLIS, IND.

At 6 o'clock, P.M., July 31, 1894, I was called to see Marie O'Neal, aged 11 years, whom I found suffering from thirst, nausea, vomiting, pain in the stomach, loins and head. Temperature in the axilla 102 degrees; extremities and face cold; pulse at the wrists imperceptible; heart's action rapid and feeble, and a marked cyanotic condition of the whole surface of the body. The patient had been out with her mother calling on friends until 4 o'clock, when, on account of feeling ill, she returned home. At 8 o'clock P.M. on August 1, the temperature was 102.5 degrees F., pulse 130 and fairly strong, frequent vomiting and insatiable thirst. No evacuation of the bowels or bladder. Cyanosis still present, hands and feet cold, ends of fingers and toes shrunken. The color of the patient was striking, presenting a bluish-ashen hue, very like that of an anemic person whose skin has been discolored with nitrate of silver. At this time the patient was extremely restless and semi-conscious. At 10 o'clock she was again visited, in company with Dr. A. W. Brayton, who saw her several times with me from this time on to the time of her death. Her temperature varied from 101 to 103.5 degrees F., until the morning of the fourth day of the attack, when it was normal, and so continued. Stupor was a constant symptom after the first few hours of her sickness, only varying in degree on different days. She could be aroused sufficiently to answer questions intelligently and recognize her friends any time during her illness, with the exception of the third day.

The history of the case shows that on July 30 the patient had sore throat, for which chlorate of potash had been used, but on inquiry the mother stated that it had been used only as a gargle. On the morning of the third day of her illness, I introduced a catheter and drew off two ounces of fluid which was of an inky blackness. This aroused my suspicion that more of the chlorate of potash had been taken than the mother was aware of. Investigation revealed the fact that eight or ten tablets had been taken on July 30, and a teaspoonful of the solution on the forenoon of the 31st, making not less than two hundred grains in all. On account of inactivity of the kidneys the bowels were kept freely opened by the administration of Rochelle salt. Towels wrung from hot water were applied to her back over the kidneys. Cardiac stimulants and diuretics were administered. The average amount of urine secreted per day did not exceed a half-ounce. The urine, which at first was dark, gradually cleared up. Examination of the blood was negative; the corpuscles were not crenated or otherwise deformed; the number was not counted.

On Sunday morning, August 5, which was the sixth day of illness, the blueness had disappeared and given place to a white, waxy appearance. The whites of her eyes were slightly jaundiced. Light pressure over the hepatic region caused severe pain. Two drachms of urine, containing a large per cent. of albumen, was secured by catheterization. Her condition continued without noticeable change until 2:30 P.M., when she grew worse, and died in a few minutes.

Peculiar interest attaches to this case on account of the rarity of poisoning by this drug, and the freedom with which it is bought and used without the advice of a physician. Tablets are kept in the drug stores and sold for sore throat. They are held in the mouth and swallowed as they dissolve. Crystals of the chlorate of potash are carried in the pocket, and taken in the mouth and swallowed as rapidly as dissolved. The unsuspecting patient takes more of the drug in this way than he is aware of, and may be poisoned.

The death of a saleswoman who took a half-ounce of the crystals during an afternoon, while at work, was recently reported by Dr. Scherer, of this city. His patient died on the following day. Dr. Theodore Potter, also of this city, recently reported the case of a man who had grave symptoms of poisoning from taking "2 cents' worth" (probably less than a half-ounce) of the crystals during the course of two days. Another case was recently reported by Dr. Florence Wier Hays, of this city, of a young lady who dissolved a dime's worth of potassium chlorate in a glass of water and used as a gargle, swallowing portions of the mixture from time to time. There was vomiting and purging; suppression of urine; paralysis of the muscles of vocalization and deglutition; darkening of the urine; blueness of the skin. The patient recovered after a week's illness. The reports of a large number of cases of chlorate of potash poisoning are recorded, and the symptoms are described with remarkable regularity. Hare describes them as follows: "When over-doses of chlorate of potash are taken it produces sickness of the stomach, headache, pain in the loins and belly, dyspnea, cyanosis, heart failure, and great weakness. The blood is dark and chocolate-looking, this change being due to the production of methæmoglobin. The blood corpuscles are crenated and broken down, and the liver, kidneys, spleen and intestines are found softened and filled with disorganized blood." The case of a healthy 15-year-old lad who took 150 grains within six hours, for pharyngitis, is reported in Vol. IV. of *Sajous' Annual*, 1892. This patient had, in addition to the usual symptoms, a number of yellowish-brown maculæ upon the side of the abdomen, back, and anterior portion of the neck, which remained an indefinite time after the blueness had disappeared.

M. Carreau, *Centralblatt für Chirurgie*, gave 150 to 300 grains daily for three days for leprosy. Grave symptoms of poisoning were produced, "but the leprous tubercles almost entirely disappeared, leaving the skin soft and wrinkled."

The following quotation from H. C. Wood's work on "Materia Medica and Therapeutics" is well worthy of consideration: "It is probable that in diphtheria, deaths attributed to the disease have often really been produced by the chlorate." Quoting further from the same author: "The minimum fatal dose is unknown, but a drachm given in the course of a night has killed an infant under 1 year old, and 3 drachms given during a day, a child 3 years old." Dr. J. von Mering, in 1885, published a brochure ("Chlorsäuer-Kali," Berlin), in which he reported a large number of fatal cases from this drug. Dr. Jacobi, of New York, was the first to call attention to the dangerous action of chlorate of potash. His article was published in the *American Medical Times* in April, 1861. Dr. Fountain reported a case about the same time in which an ounce was taken. Copi-

ous diuresis followed almost immediately, then suppression of urine, and death on the seventh day.

Dr. Stephens and Dr. O'Shaughnessy asserted that chlorate of potash imparts its oxygen to the blood. This was generally accepted as true, and until later investigation proved that chlorate of potash is eliminated as such, and without appreciable loss of weight, it was often prescribed in cases of cyanosis and asphyxia.

Theoretically, chlorate of potash has little just claim as an internal remedy. Practically, it has not been scientifically demonstrated to possess remedial virtues, except as a local stimulant to the mucous membranes.

26 East Ohio Street.

RANDOM THOUGHTS ON OUR SPECIALTY.

Read in the Section on Dental and Oral Surgery, at the Forty-fifth Annual Meeting of the American Medical Association, held at San Francisco, June 5–8, 1894.

BY A. E. BALDWIN, M.D., D.D.S.

CHICAGO.

Under this heading the writer feels free to wield a free lance, and he also feels that there are many things that may be properly grouped under such a title, thus giving a writer an opportunity to suggest varied lines of thought with possibly not a very logical grouping of them. In taking a retrospective view of our professional work and advancement during the last score of years, one can not help a strong feeling of disappointment, in spite of the very extravagant claims of the average dentist. In such a retrospective glance we must keep in mind that the effort of all truly scientific minds is toward that which is strictly scientific—and all will concede that the nearer we approach that exact position, the more incumbent it becomes us to make our so-called scientific work, truly so, by making it clearly demonstratable. To place our specialty in such a position requires us to develop a class of people in our branch of professional work who will ever and always *think for themselves* on any and all subjects. We can not mix to any extent with our fellows in our society meetings without being impressed with what seems to be a fact, that at least 95 per cent of our fellow workers allow themselves to simply swallow any honeyed or less daintily arranged bolus prepared for them by the other 5 per cent., and presented to them in the name of science in a grandiloquent way by one to whom, perhaps, had not yet been born a single original idea—or who knew not the difference between a "premise" and a "conclusion."

There just now occurs to the mind of the writer an illustration which he asks pardon for narrating. This occurred at a meeting of the American Dental Association a few years ago. One of our brethren, who *assumes* great dignity and profound knowledge, read a paper on "Carbolic Acid." The paper was lengthy and verbose, and was by many of the hearers hailed as a wonderful production; they almost made themselves appear as sycophants in their loudly expressed remarks in adoration of the wonderful ability displayed by the writer in his profound experimental research, as demonstrated by the paper; and doubtless many a young man hearing this paper and the comments of others upon it, went away from the meeting prepared to gulp down anything they might hereafter see emanating from his or his secretary's pen—when to strip this paper from its "ego" and husks you will find it simply a *compilation* from old authors, good and bad, and containing absolutely nothing of any practical or scientific importance but what was from some work direct; not a thought original with the author. The writer went away humiliated that among the many able men there gathered, there were so few who realized the imposition. Again, at another time, at a meeting of the Chicago Dental Society, the writer heard a so-called leader in our ranks—and this only a few years ago—say that he could always diagnose uterine diseases (presumably of women, though he did not say so) by the condition of the mouth of the patient, and the statement went almost unchallenged. What weight could be put upon anything said by such a "pseudo" scientific physician?

These illustrations are made, not for the purpose of casting slurs, but to call attention to the lack of exercise of discriminating power. What is uppermost in the writer's heart, is that the very small number of our brethren who will think for themselves, and not say "amen" to anything simply because some professor says so—but will weigh with physiologic, anatomic, histologic, pathologic or etiologic scales these so-called facts and then indorse or condemn as the scales may determine, that the number of these may increase and multiply until it will be very dangerous for one to stand up before them in public or private and feed them chaff, calling it wheat, with the hope that the statement will pass unquestioned.

Why should we be blind leaders of the blind, or allow the blind to lead us, though they may *claim* they see. We should be awake and learn to think for ourselves. Probably we, in our busy lives, may not have the time or opportunity for as much original investigation as we would wish, but this does not necessarily imply that we may arrive at the same conclusions that an original investigator arrives at, for we (if he lucidly explains all the processes of the experiments) are in possession of all the "premises" from which he draws his "conclusions," and may view them far differently than he does.

In glancing over our journals the same thing is noticed—the immature thought is stated often as a certain conclusion and accepted as such. Many a specialty journal if put into the retort and subjected to the fire of scientific reasoning would come out wholly ashes, and many more would leave only the microscopic atom of truth.

If we might have some power given us to secure a journal that would contain each issue, nothing but demonstrable truths or plain, honest premises, from which to form our own conclusions, how small and choice such a work would be. Our shelves would never get overloaded, neither our minds overburdened in separating the gold from the dross. Then again we think all observing persons are aware that there are many in our ranks who are oftentimes satisfied to do, under certain circumstances, less than the best they can do. This is a matter that vitally concerns us all, for to slight an operation is to bring reproach upon ourselves as a whole. There is, of necessity, a great deal of difference in the various methods as practiced by different operators, but the rule that should govern in these matters is that we should not vary from well-established rules of operation unless we have well grounded physiologic reasons for believing the experimental method is an advance upon the old.

How few among us know the reason each time for what they do, or even try to solve the problem. How hard we have to drum the idea into the head of the average person, that growth or development of the part is induced by systematic exercise of the part, and if we as specialists expect a healthy and generous growth in mental and physical ability, it must come very largely at least, not only by systematic thought and close study of books, but by training our powers of discrimination, so as to be able to determine the true from the false. Only a few days ago the writer had occasion to extract a tooth for a patient, in which he found that the pulp-chamber had been filled with, apparently, no attempt to clean the *débris* from the root canals or to fill them. Upon learning who the operator was and thinking it was a mistake on his part, he took occasion in the kindest way possible to call upon the dentist and show him the work and call attention to the history of the case; when, surprising as it may seem, the dentist said he knew he did not fill the root canals, and as an excuse said for what he charged he could not afford to do any more work than he did.

Is it any wonder that when such things are done the people are distrustful of the ability or the honor of our workers? No one can afford to do less than the very best that lies in his power, regardless as to whether he gets a large price or does the work for nothing. The rule is called "Golden," that we should follow in this and in all matters; then the world, as well as our profession, would always be the better for our having lived.

DISCUSSION.

DR. TALBOT—There is only one point in this paper I wish to emphasize, and that is the independence of thought which Dr. Baldwin urges. Do not take everything which is said by the voice of authority to be finally settled. Weigh everything and judge it by the best knowledge you have. We, as dentists, labor under one disadvantage. Our professional training is narrow. We are taught one branch of medicine and we do not get the broad, liberal foundation which we ought to have. If we had a thorough training, not only in medicine but in the sciences, we could reason upon all subjects. We could decide for ourselves whether the arguments of a paper were correct or not.

In closing the session, I want to say that I am more than gratified with the papers which have been read and the discussions which have been evoked by them. Taking into consideration all the circumstances, we can congratulate ourselves on having had a very successful meeting of the Section. The sessions have been well attended and the numbers in attendance have been constantly increasing. We never have a large attendance; in fact we do not want mere numbers, unless they enter actively into the work. I was one of the originators of the Section, which was instituted for the purpose of educating the medical profession in dental subjects, and you must admit that they have certainly become interested in us and they read our papers in the medical journals. I believe that we will in fifty or a hundred years be recognized as an important part of the medical profession.

The Section then adjourned.

THE PRESENT AND FUTURE STATUS OF THE DENTAL PRACTITIONER.

Read in the Section on Dental and Oral Surgery, at the Forty-fifth Annual Meeting of the American Medical Association, held at San Francisco, June 5–8, 1894.

BY JOS. D. HODGEN, D.D.S.

SAN FRANCISCO, CAL.

The dentist of to-day is the doctor of dental surgery, educated and licensed as such. As a practitioner his province embraces the science and art of diagnosing and treating diseased conditions of the organs and contiguous tissues of the oral cavity, of operating surgically for deformed, injured and wasted conditions, and, supplying artificial substitutes in the place of organs and tissues lost in that region.

From such it is to be inferred that the truly proficient practitioner should have, at least, a partial if not a finished medical education; that he is to no slight extent an oral surgeon, and that he is a skilful and scientific mechanic. He is thus at once a physician, a surgeon and a handicraftsman—a dentist. His parallel, to a partial extent, might appear in the oculist, who linked with his own specialty the skill of the manufacturing optician.

In holding that a dentist should have the advantages of a medical education we are well aware that we meet with no inconsiderable opposition. But, while the opponents to such are strong in numbers, they are weak in point of argument to sustain their holding. It is argued that the time and expense necessary to such a course are its greatest hindrances. It is perhaps true that many men who are now enabled to pursue a course in dentistry would be deprived of that privilege if our colleges prolonged their term of pupilage to that extent necessary to embody a medical curriculum. However, we are led to doubt this as a fact when we recognize that only three years ago the course in dentistry was lengthened from two years to three, and that by actual statistics there are more colleges and more students to-day than there has ever been at any time previous. Young men are crowding the colleges and the profession who would do well to stay with the plough and farm. Are we, then, to lower the standard of the profession in order to receive these men to our already overflowing ranks? Is dentistry a refuge for those who are seeking what appears to them an easy and respectable means of gaining a comfortable livelihood? It is also said that dental practitioners burdened with medical education "view their dental work through medical spectacles." What detriment this may be to their judgment as dentists is not clearly explained. Further, it is argued that the majority of dentists who attain a medical education "subsequently abandon dentistry for the practice of medicine." Such a condition does not interest us or fall within our province to consider.

No; the status of the dentist of to-day is—change, preëminently, above all else. He has reached that point at which he must declare himself a handicraftsman, a mechanic, a skilled laborer, or a scientific specialist of the great healing art. He has occupied the disputed position as long as progress will permit. Which shall it be? Back to mechanics and back to charlatanism, empiricism and closed laboratories, or a step towards medicine, a move towards occupying what has been termed the *terra incognita*, that territory of practice which has heretofore been partially claimed by both medicine and dentistry, and preëmpted by neither? It means that we must now decide whether we are to practice tooth restoration or tooth conservation; whether we are henceforth to be satisfied with the slaughter of natural organs and tissues in order to restore and supply, or by scientific investigation aim at the conservation of what remains and prevent the inroads of further destruction.

It has been lately remarked that "dentists are wonderful patchers-up of things half gone, but they do not show how to prevent the going." This is the key-note. And what is the cause of this condition?

Is it because our mechanical skill has been neglected? Should we have had more infirmary and laboratory practice and training at college? Is our metallurgy and physics defective? No; more science and more medical education.

We feel safe in the assurance that conservative dentistry must necessarily be based on an appreciation of the anatomic, physiologic and pathologic relation of the mouth in disease and health, and that until the importance of this kind of knowledge is fully appreciated, a community will fail to receive at the hands of its dentists the benefit which they have a right to expect.

"To be impressed," says one, "with the necessity which these propositions indicate, one has only to remember the various important anatomic and physiologic functions of the mouth; its physical, organic and mental associations, and the corresponding extent of its pathologic relations.

"Anatomically, no portion of the human economy offers a more complex association of structures; physiologically, none whose functions are so diversified, and yet so essential; pathologically, none whose systemic relations are more significant.

"A consideration of the pathologic relations of the mouth includes radiated, reflex or sympathetic disturbances of harmony, or interference with function in contiguous or remote organs, originating in the mouth, as the expression in the oral cavity of lesions or interruption of harmony in other organs. Morbid systemic or constitutional conditions, whether the result of some intermediate primary affection, or of inherited tendency, or perversion, find usually a more or less strongly pronounced expression in the mouth.

"It is supposed that the dentist is entirely unacquainted with the systemic condition of his patient. Indeed, he is not presumed to have any right to meddle with such; while the physician rather complacently ignores the importance of the local lesions which is esteemed the province of the dentist to correct.

"Meanwhile, the patient chafes at the incompetency of the dentist who fails to arrest by mechanical skill the ravages of caries, and perhaps the operator himself fails to recognize in the lesions the expression of the systemic mischief. On the other hand, the physician, ignoring the local causes, tries in vain pills, and plasters, blisters and purgatives; tries in vain the whole round of narcotics, sedatives, stimulants, tonics, anti-spasmodics and anti-periodics; talking learnedly of neuroses and cachexia until pharmacopœia, patience and patients are alike exhausted."

These undeniable facts are illustrative in the necessity that a wider range of knowledge by the dentist is imperatively demanded.

During the year 1881 a considerable agitation of the subject, the status of the dentist, was evoked by the publication of a paper written by Dr. Truman W. Brophy and read before the New York Odontological Society, in which that gentleman advocated the establishment of a Section of Dentistry in the AMERICAN MEDICAL ASSOCIATION. And notwithstanding the somewhat considerable opposition on the part of physicians and dentists, that Section was organized at the thirty-second annual meeting of the ASSOCIATION. The principal objection to the movement at the time was, as many may remember, the condition upon which dentists were to become members. Since only those practitioners of dentistry who were graduates of regular medical colleges and members of local county societies were held eligible, the opposing members of the dental profession held that dentistry was being represented by representatives who had no constituency.

In the same year the first meeting of the Section on Diseases of the Teeth—a compromise in name—was held at the International Medical Congress in London.

At the thirty-eighth annual meeting of the AMERICAN MEDICAL ASSOCIATION, in 1887, to relieve the embarrassment that existed between the regular profession of medicine and the dental profession, it was argued that the Department of Dental and Oral Surgery was as much a part of the profession of medicine as ophthalmology or otology, or any other 'ology, "because," said our friend, "our teeth are parts of our system, and are used more than any other part," and that since dentistry has owned with humiliation the soil from which it sprang and had since steadily advanced presumably to a decent respectability, that it was only just and proper that the arms of the AMERICAN MEDICAL ASSOCIATION be more widely extended to receive the foster child.

At this meeting the line of demarcation was drawn as per the following resolution:

"*Resolved*, That the regular graduates of such dental and oral schools and colleges as require of their students a standard of preliminary or general education and a term of professional study equal to the best class of medical colleges in this country, and embrace in their curriculum all the fundamental branches of medicine, differing chiefly by substituting practical and clinical instruction in dental and oral medicine and surgery, instead of clinical medicine and surgery, be recognized as members of the regular profession of medicine, and eligible to membership in this ASSOCIATION on the same conditions and subject to the same regulations as other members."

This is as far as the recognition of dentistry as a medical specialty by medicine has gone. Since 1887 no particular advancement has been made, certainly, on the part of medicine. Thus far we have defined the position of dentistry and shown what has been done on the part of those most active in the advocacy of its being a specialty of medicine.

Medicine, in its broadest sense, is the science and theory of disease and of remedies, the art of preventing, curing or alleviating diseases and lesions of the human body, and its highest form to-day is found in its specialism; in other words, the medical art breaks away at once from the unity of the theory of disease, and while there is but one body of pathologic doctrine for either sex, for every period of life, and for every region and part of the organism, the practical art divides itself into departments and sub-departments, such as surgery, obstetrics, dermatology, ophthalmology, otology, etc. Dentistry, or more properly at this juncture, odontology, being the science or art of preventing, curing or alleviating the diseases of the teeth, which form an important part of the human body, is therefore a department of the healing art.

Such a deduction is but a natural one, and true in the confines of its premises. Why, then, are we still clamoring without the gates for admission? Because to the doctor of medicine this is not strictly true. He is not so liberal. Medicine to him is only medicine when the art of preventing, curing or alleviating diseases of the human body is practiced by medical graduates of medical colleges. When teeth are con-

served from disease or extracted when useless, it is dentistry.

So the status of dentistry to-day, as far as our medical brothers are concerned, is not that of a specialty of medicine, principally because we are not graduates in medicine. Are they right? To those who may believe that they are not, it is comforting to feel that though their maternal acknowledgment is so dear and their association so keenly desired, they shall not be permitted to sit sole judges of our relationship.

Other influences, both external and internal, are doing much to drag us from this fireside of art and science. The first, we are led to believe, is the necessary amount of mechanics our profession is obliged to teach and practice; 2, the distinctive degree and curriculum we are attempting to maintain and enforce; 3, the percentage of our profession who are not graduates—many of whom, though, are our brightest lights; 4, our determination to be recognized.

The forces and influences which are tending to draw us beneath the maternal roof are, however, such that they will eventually overcome all opposing ones. They are:

1. The addition of medical chairs to dental faculties, and the division of dentistry into the operative and the mechanical dentist.

In all large communities men who make a business of doing mechanical work for one or more practitioners are fast becoming a special department of dentistry. These mechanical dentists in many cities do a very large percentage of all the mechanical work, and in some States the law is inclined to wink at the infractions of these unlicensed.

2. The patent dissatisfaction in which the degree is held, and the disinclination of colleges and universities to settle upon the not unusually adopted degree of doctor of dental surgery, together with the tendency to establish a variety of post-graduate degrees for the purpose of advertising those decorated and the college conferring it.

3. The rapid percentage decrease of the body of non-graduates and the tendency of dental and medical graduates who intend to practice dentistry to acquire both medical and dental degrees.

4. The establishment of the Oral Section of the AMERICAN MEDICAL ASSOCIATION.

The elevation of any particular class of men is, however, dependent upon a demand on the part of their constituents; the people. The greatest advancement of any profession or body, the pulpit, the bar, the medical fraternity, or what not, is the result of enlarged conception on the part of their representatives, and that conception has its stimulus in the public demand.

The forces, then, of successful issue lie in the education of our patients, in the establishment of recognition from them, occasioned by scientific efficiency, and an elevated qualification in the average practitioner.

No amount of recognition from a National, State or local medical association given a body of men undeserving, can be made to stand the test of popular opinion.

We therefore believe the future course of those who are so ably leading, to be not only through the channels of education as it may present itself in the education of dentists in the specialty of medicine, but that theirs is a plea for text-books and for education of the people.

Complete recognition can only, and will result, in the displacement of the dental degree by the medical for all, with special training for special practice.

DISCUSSION.

DR. R. H. COOL—I am interested in the paper, especially in its advocacy of a wider range of knowledge for the dental practitioner. I take the opposite view, that more knowledge of oral and dental surgery and of its resources by medical men is needed. More and more the best surgeons and best physicians are coming to call in the dentist in oral lesions. As an instance of the value of the dentist's knowledge in these cases, there is no known splint for a broken jaw like that made by an experienced dentist. In antral troubles the surgeon also calls in the aid of the dentist. With regard to instruments, those shown by Dr. Talbot for perforating the antrum produced the impression that they would give a great deal of pain, while our dental engine makes a prettier opening much easier. We can almost say that dentistry is now acknowledged among the leading surgeons as a nucleus for dental information, and I think we are being recognized as a professional body by them.

DR. A. F. MCLAIN, Santa Rosa—I agree with Dr. Cool as to the advantages of skilled consultation between surgeons and dentists in diseases of the mouth and jaws. A student at the dental college contributed to a successful result in a case in which there was a fracture of the jaw near the ramus, which may have been comminuted. This student took the case in charge, made an interdental splint for it, and I defy any one to say that the result was not everything that it should be.

DR. M. J. SULLIVAN, San Francisco—I heartily indorse the tone of the paper. I have always believed in a liberal medical education for the dentist. The better the foundation the surer the success, both theoretical and practical.

SOME PATHOLOGIC NOTES ON NEOPLASMS OF THE MAXILLÆ.

Read in the Section on Dental and Oral Surgery, at the Forty-fifth Annual Meeting of the American Medical Association, held at San Francisco, June 5-8, 1894.

BY VIDA A. LATHAM, F.R.M.S., D.D.S.

CHICAGO, ILL.

Among the conditions associated with the pathology of the oral cavity and its contiguous parts, none are perhaps more interesting than those relating to the new formations which may be observed there. A pathologic formation may be simply an excessive production of the normal structure and is a morbid condition only in respect to the amount and arrangement of the ordinary tissues of which it is composed, or of the region in which it is situated. These are known as "homologous" growths and form a large number of all the pathologic formations throughout the body, and include the hyperplasias, exostoses, congenital tumors, and many growths of varying origin, such as the arthritic enlargements, formations following a rheumatic attack, or the chronic inflammatory enlargements due to long continued irritations. The main and most important class of neoplasms are those belonging to the "heterologous" class in which the structural elements are different from the tissues in which they are situated, or with which they are connected. The true distinction is one which depends upon the histologic composition, rather than upon the gross external appearance or upon the clinical peculiarities. The great and only reliable distinction is the microscopic, for upon this depends to a very great extent the correct estimation of the nature and tendency of any pathologic formation, both in relation to its effect upon the tissues with which it lies in direct contact, as well as

its influence upon the well being of the individual. Certain growths are found to consist of a tissue different from any found in the adult body, and therefore, unlike any of the tissues in which they are situated. These are very confusing to the pathologist and they have to be referred to some of the immature forms of the tissues, or to their derivatives. We must, in fact, return to embryologic tissues, for we only find the embryonic types sparingly distributed in adult life or limited to certain parts.

We usually regard growths of mesoblastic origin as of a malignant type, but still the benign forms are found as fibroma and so forth.

Granulation tissue or embryonic connective tissue *is not a permanent structure.* It only exists in the body of the embryo as a transitory material, the conversion of which produces another and entirely different material. We can easily understand if embryonic tissue re-appears at a time when no process of repair is going on, and accumulates in any great amount, that it may undergo similar changes to those belonging to it in its usual and normal state. It is never a permanent tissue, but is always changing to other and different forms of structure. When a new growth appears it exhibits a tendency to undergo further changes, either extension of disease, or more often a rapid decadence or retrogression of the tissue already formed, and lastly it may be combined with almost any form of tissue in the body.

Text-books on oral surgery and pathology convey erroneous impressions by classifying neoplasms of the oral cavity as ordinary types; but a careful examination with the microscope reveals the fact that they are much more complex and peculiar. It is to this "mixed" class that I find the majority of the tumors of the maxillæ and oral cavity belong, basing this statement on the microscopic examination. These growths are also much more common than is usually thought to be the case, particularly so in the region of the neck, reaching from in front of the submaxillary gland to the parotid, and surrounding the angle of the jaw. Nearly every specimen obtained so far from this region has been of this peculiar type of growth, bearing no resemblance to any fixed type of tissue and having only an ordinary clinical history. The diagnosis made by the operator has in almost every case proved to be erroneous when the growth has been examined microscopically. The commonest varieties perhaps are epithelioma and sarcoma, the latter usually a peculiar mixed form between the round-celled, spindle-celled and osteo-sarcoma. Enchondroma undergoing sarcomatous degeneration is also met with.

Tumors of the salivary glands are almost always confined to the parotid, being very rare in either the submaxillary or sublingual glands.

The commonest type of the parotid tumor is one composed of a mixture of cartilage, myxomatous tissue, a varying quantity of connective tissue and ill-formed glandular acini. Growths of this nature are often called "parotid glandular tumors" or "adenomata," but it is quite rare to find a growth the bulk of which is composed of true gland tissue. The cartilage of these tumors is hyaline and it is by a mucoid degeneration of its stroma, and that of the fibrous tissue of the growth that the myxomatous tissue is produced. Sometimes there is a considerable mixture of sarcomatous tissue; at others the growth is chiefly cartilaginous; and as might be expected from this variety in structure there is a corresponding difference in the rapidity with which such tumors develop. These growths appear in middle life and are found in either sex. They occur most often in that part which overlaps the lower jaw, are usually encapsulated, and when small adhere but little to surrounding parts. They attain large size if left alone, and may cause death by encroaching upon the pharynx or large vessels. The lymphatic glands are seldom affected, and although the growths may recur locally after removal, they seldom or never become disseminated.

Malignant growths are happily rare in the parotid. About the only growth which occurs in the submaxillary gland is made up of cartilage and even this is rare. According to Bowlby, there are not more than seven or eight cases on record and they are usually enchondromata.

Tumors of the maxillæ possess so many distinct features as to almost require a separate description. These distinct characters depend partly on the proximity of the neighboring mucous cavities, partly also on the presence of the teeth and of the fetal structures from which the latter originate.

Epulis is a loose term often applied to any tumor which appears on the gum, but is best limited to the fibromata. It usually develops from periosteal tissue and is occasionally attached to the periodontium and very often extends into the alveolus. It necessarily compels the extraction of a tooth or teeth and excision of a portion of the alveolar margin. A simple diffuse epulis is usually only a thickening of the gum.

Myeloid sarcomata are often included as myeloid epulides growing within and expanding the jaw bones, presenting rounded, tense and elastic swellings often feeling suspiciously like cysts; and generally found in young people. Other varieties of sarcomata occur within the jaw bones and also within the antrum. The cells are round or oval. The growths being soft and rapid in development, tending to extend all around and to fungate through the skin, affecting the lymph glands and so disseminating.

The distortion of the antrum and its relative structures is too well known to require description. Any tumor growing in this region tends to distend the cavity in this way, but malignant tumors do so in a more typical manner than do the benign growths. Fibro-sarcomata are found in the inferior maxilla (mandible) are not very malignant and when completely removed with the bone seldom recur.

Carcinoma are most often found in the antrum[1] and develop from the epithelioma lining the antral cavity. They are rapid in their course, affect the glands, rapidly disseminate and are usually found in elderly people.

Multilocular cystic tumors, so-called by Mr. Eve,[2] and known as "cystic epithelioma" stand in the position of a mixed growth—a solid and a true cyst. They are most common in the inferior maxilla and are endosteal or central growths and possibly originate by an ingrowth of the epithelium of the gum and following caries or traumatism of the teeth. They occur at any age but usually between 20 and 40, are slow in growth and may take years to reach any size. The growths are usually not malignant and seem not to affect the glands or disseminate. The

[1] New York Medical Journal, November 10, p. 586, and November 17, p. 612.

[2] British Medical Journal, Jan. 6, 1883.

bone is usually expanded on its inner side, and is very hard to the touch, sometimes elastic and crepitant. The teeth loosen, fall out, and a sticky discharge comes from the alveoli. Macroscopically the bone shows expansion, the cavities are filled partly with a solid growth of a soft fibrous or fleshy material, partly by fluid, serous or viscid. The septa dividing the cysts are often incomplete and are either fibrous or bony.

Periosteal cysts are situated beneath the periodontium, generally inflammatory in origin and are found in connection with carious teeth or with imperfectly extracted roots. They are very painful.

Antral mucous cysts may also be found and must be differentiated from malignant growths as they produce a similar distension by their slow growth and fungation; and as the bone turns the presence of fluid is soon detected.

Dentigerous cysts and odontomes[3] are quite well described in our dental surgeries and pathologies.

Diffuse osseous growths of the antrum are rather peculiar *in that they diffuse over the whole area of the antral* wall, and do not grow from some definite portion as is the usual mode. Therefore we have no definite tumor, but a general thickening of the whole bone which incloses the antrum and a gradual obliteration of the sinus by the new bony formation. It may be confined to the antral cavity or may extend to the superior maxilla. The growth is slow, occurs in youth and is benign.

Cartilaginous tumors of the superior maxilla are extremely rare and usually combined with sarcomatous elements.

Sarcomata. This group which is mainly due to the exertions of Virchow, includes the fibro-cellular, the mucous tumor, and the myeloid of English surgery. The group, on the whole, nearly corresponds to Paget's recurrent fibroid. The best classification of this group is perhaps a strictly pathologic one after Billroth:

1. Round-celled sarcoma, granulation-sarcoma (including glioma) consists of mesoblastic corpuscles; the inter-cellular substance is homogeneous, striated, reticulate and varies widely in amount.

2. Spindle-celled sarcoma. The cells are usually well-marked, intercellular substance is absent or scanty, homogeneous or fibrous. The most recurrent sarcomata contain this tissue but do not always recur.

3. Giant-celled sarcoma, myeloid. This has the general structural elements of one of the other varieties and has in addition many large multinucleated cells.

4. Net-celled sarcoma—mucous sarcoma. This is not *exactly* like the myxoma. Myxomata are sarcomata of various kinds and are similar by having a gelatinous appearance. Net-celled sarcomata contain stellate cells with long processes and gelatinous intercellular substance.

5. Alveolar sarcoma are very rare.

6. Melanotic, may be combined with alveolar. Glandular tumors secondary to epithelioma of the lip or tongue become adherent to the lower jaw in the later stages, but must not be confounded with growths originating in the bone itself.

These are, in brief, the most important varieties of neoplasms met with.

With regard to frequency. The superior maxilla seems to be most often involved and usually recovers itself, on account of its high degree of nutrition. In an article in *Archiv. für Klin. Chirurg.*, (Vol. xviii, 25, 1875) an account is given where the entire jaw was removed fifteen times:

"Twice for carcinoma, five for sarcomatous growths as giant-celled, three as spindle-celled, one as round-celled and one as medullary. Cylindromata twice required partial resection; epitheliomata twice an almost complete resection; enchondroma one, a total resection. Mortality being 15 per cent. According to this proportion carcinoma is more common than medullary sarcoma."

This does not agree with Prof. C. O. Weber's account: "The usual result of carcinoma is a recurrence after about one to three years and usually recurring in the cicatrix."

The diagnostic signs of antral growth are as follows: When springing *from the interior* of the antrum, the orbital, nasal, palatal and buccal walls of this cavity are expanded, according as the tumor grows upward into the orbit, inward into the nostril, downward into the mouth, or forward upon the cheek, causing a prominence of one side of the face. A tumor of the antrum in many instances grows simultaneously in all these directions, producing exophthalmos, obstruction of the nostril, prominence of the cheek, and bulging of the roof of the mouth. When springing from the *anterior surface of the superior maxilla* it causes a projection of the cheek, dipping down between the gums and the soft structures of the face. It may extend backward into the interior of the antrum by increase in size, thus secondarily implicating that cavity. When springing *from behind the superior maxilla* the upper jaw is first pushed bodily forward, but as the antrum becomes secondarily involved, any of the walls of this cavity subsequently become expanded and rendered prominent.

A serious affection of the gums appears in a more innocent garb, apparently a mere ulcer. Dental surgeons are more apt to see it in its earliest stages than are surgeons. A sore appears, perhaps awakened by a carious tooth. It does not heal kindly, but exhibits a tendency to extend. Its borders become hard and thick, its base soon adheres to the bone beneath—this is cancer.

"Bone is never the seat of cancer primarily." This broad statement was first made some years ago by the best German pathologists, and cancers of the superior maxilla were held up as positively disproving any such idea. But now we know there are but two locations in the superior maxilla where cancer is first encountered. The first appears as above—upon the gum; the second in the antrum of Highmore. In each case it starts as an ulcer, eats its way into the bone, and never appears as a distinct tumor. The sore is found upon the gum, its edges thick and firm, base immovable, and this characterizes its malignant infiltrating tendency. Dentists can not have these facts too strongly impressed upon them. It will be noticed that carcinoma of the body of the superior maxilla conceals its true nature at first, and except by a careful person is not recognized until extensive destruction of bone has resulted, possibly an opening made in the oral, nasal or orbital cavity and is soon beyond operative relief.

Butlin has removed the upper jaw within seven weeks of the first signs of the disease, only to find the bone entirely destroyed and sinuses burrowing into all the

[3] New York Medical Journal, p. 612, 1894.

surrounding parts. Thus we see the necessity, when malignant disease is suspected, to examine not only the mouth, nose and orbit, but even the throat, and here comes the necessity for broad medical and dental education in the combined efforts of thorough dentists and surgeons. Professor C. Heath gives an excellent suggestion, and a most valuable one, when he says the attachment of any growth to the roots of extracted teeth should excite the suspicion that a serious disease is present in the antrum, and a microscopic examination should be made.

In conclusion, we have seen from the foregoing remarks that neoplastic growths of the maxillæ are then modified forms of the great groups, carcinoma or sarcoma. They are, in fact, more truly complex and diffuse in structure, so much so as to require special grouping; for in structure the histologic-elements are not allied as is usually the case in growths found in other parts of the body. I regret to say that lack of time prevented the subject being brought before you in a more thorough manner, but as their structure is so complex more special study was required. It is hoped this may be completed later and published with photographs and cases. Might I suggest that members of the ASSOCIATION and profession kindly collect such specimens and examine them, or aid by loaning or giving specimens for examination? They would thus enable better and more complete work to be done in this line, and so preserve valuable material. They would confer a great favor upon the essayist, and at the same time help to make understood some of the great questions which occur in oral pathology, especially in the histologic details.

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DISCUSSION.

DR. JACOBS—Some seven or eight years ago I studied the structure of tumors considerably, but I have done very little work in that direction lately. I should not therefore dare to discuss the paper further than to confirm it as far as I know, and to say that Dr. Latham is the hardest worker I ever knew, and I have no doubt of the correctness of everything she says.

SOCIETY PROCEEDINGS.

Medical and Chirurgical Faculty of Maryland.

Semi-Annual Meeting held at Cumberland, Maryland, Nov. 21 and 22, 1894.

FIRST DAY.

The Medical and Chirurgical Faculty of Maryland convened in session in the council chamber of the city hall at Cumberland, Nov. 21, at 10 A.M. After the Address of Welcome by DR. J. M. SPEAR, of Cumberland, and the Address by the President, DR. R. W. JOHNSON, DR. H. SALZER read a paper on "Distension of the Stomach," in which he spoke of the methods of diagnosis of diseases of the stomach, and especially distension of that organ, by examination of the gastric secretion. He did not always use the stomach tube, but let the patient vomit the substance taken, and then made an examination.

DR. WM. OSLER thought that the method of Dr. Salzer was more pleasant than the one by the use of the stomach tube. He thought that the examination for movable kidney, as suggested by Dr. Salzer, was important. He generally found signs of dilatation of the stomach in neurasthenic patients, and palpable if not movable kidney, and it may be at times a floating kidney. He believed in the abdominal bandage after pregnancy, and it was important in preventing these troubles.

DR. GEORGE J. PRESTON thought that all those who saw many cases of neurasthenia would be interested in this paper. It is a question how far the nervous condition affects the distension and how far it should be treated. In many cases that he had treated he had noticed diminished knee jerk.

DR. E. M. SCHAEFFER would support what he said about the corset and absence of exercise. He thought the use of the tight corset was potent to do much harm, and exercise would correct many troubles, and he approved of the bicycle in certain cases.

DR. ROBERT L. RANDOLPH read a paper entitled "Some Suggestions as to the Treatment of Wounds Involving at the same time the Lens and the Ciliary Region," and reported two cases in which he did not find it necessary to remove the eye, but took out the lens and one case got well, with some vision,

DR. HARRY FRIEDENWALD read a paper on "Removal of Particles of Steel from the Interior of the Eye with a Magnet," in which he related several cases successfully treated, showed the steel and the magnet, and explained the manner of using it.

DR. WILLIAM H. WELCH then made some

REMARKS ON THE DIAGNOSIS AND TREATMENT OF DIPHTHERIA.

The study of the antitoxins is the order of the day. The evidence that the Klebs-Löffler bacillus is the cause of diphtheria is very conclusive; no one can doubt this now. It is constantly present in every case of genuine diphtheria; isolated in pure culture it is productive of the disease and the disease can be produced experimentally in no other way. We are familiar with the toxic principle of this disease and we know its physiologic but not its chemic properties. This substance has been found in the bodies of those dead from diphtheria. There is probably no organism the study of which has led to such practical results as this. It gives us the diagnosis, prognosis and treatment. The diagnosis can be made with certainty by the demonstration of the specific bacillus. There are many diseases which are like diphtheria in their clinical history, such as membranous croup. Then there are the cases where the disease would not have been recognized on account of the slight symptoms if the bacillus had not revealed the diagnosis, and these light cases are the very ones which spread the disease. Then our increased knowledge of this disease allows us better to understand its symptoms and the question whether it is a local or constitutional disease is cleared up. It develops locally; the bacilli are attached to the membrane in the pillars of the fauces and here the toxins find their way into the body, causing the constitutional symptoms. The prognosis hinges to some extent on the demonstration of associated bacteria. Other bacteria may be associated with the Löffler bacillus in the throat; thus the presence of streptococcus gives an unfavorable prognosis and offer fewer chances for successful treatment. An accurate diagnosis is not only important in order to carry out the treatment, but makes it possible to take sanitary precautions. Of those who are exposed to diphtheria not a small number receive the bacillus without getting the disease, especially in crowded districts. The organism has been found in as many as 50 per cent. of the persons exposed whether they took the disease or not, which shows that there must be a susceptibility, which is a very important point. This susceptibility may be local, that is, susceptibility exists for the local effects and not for the toxins, or the reverse may be true; the local effects may be slight and the general systemic poisoning very severe and in some cases there is no susceptibility at all. Some cases show a thick membrane and little poisoning, and *vice versa*. The method of making the bacteriologic diagnosis is a simple one. As little of the membrane as possible is taken, or some of the secretion from the posterior pillar of the fauces near the larynx. First, cover-slip preparations are made. If it is a case of genuine diphtheria the diagnosis can be made in about 50 per cent. of all cases with no further ex-

amination. Still this is not so conclusive, as it is not quite so characteristic as the tubercle bacillus. For culture medium the Löffler blood serum mixture is used. It is usually sterilized now by exposing it to a heat just below the boiling point for a half hour. The mixture is opaque when rapidly heated, and clear when done slowly. When a small piece of the membrane or some of the secretion has been smeared over the surface of the culture medium and put in the incubator at body temperature, the culture appears in eighteen to twenty-four hours. Even if kept at the temperature of the room there will be a feeble growth. Usually the growth takes place rapidly. The difference between the growth of the true and false bacillus may be seen in the beef bouillon. In most beef, of which the culture medium is made, there is usually a little inosite or muscle sugar. This undergoes a change in color when the true diphtheria bacillus is inoculated into it, which does not occur when the false bacillus is inoculated.

The question now is how to make this method of diagnosis available to all physicians. In New York City this problem has been beautifully solved much to the admiration of the whole scientific world. Formerly many cases of ordinary angina and sore throat were called diphtheria and much glory was reaped by the physician who cured the case. Now the bacteriologic diagnosis shows that only about one in four is true diphtheria, and this not only separates the cases and makes a certain diagnosis but it saves those other three cases from exposure to the disease, for in most instances these supposed cases were put at once into the diphtheria wards and if they did not have diphtheria before, they promptly acquired it there. In carrying out the serum-therapy only artificially immune animals can be used; those naturally immune will not do. The animals usually selected are the horse, goat, cow and dog. The manner of procedure is to inoculate the animal selected, with a minute part of a pure culture of the organism. A change takes place in the blood and a new substance is found there. After each injection of the poison there is a diminution of the antitoxins and then they increase and so on until in course of time the antitoxin takes its place in the blood and a large dose of the culture will not affect the animal. It takes from three to four months to immunize an animal. In simple cases where there is no association of the streptococcus a few injections will effect a cure. Roux' experiments showed that in all cases under ordinary treatment about half died whereas in the antitoxin treatment about 26 per cent. died. A mixture of the pure culture of diphtheria and antitoxin in a test tube does not destroy the bacillus but holds its action in abeyance when this mixture is injected into an animal; if the streptococcus be added and then this mixture be injected, poisoning takes place from which it is concluded that the streptococcus keeps the antitoxin from acting and allows the poison to affect the victim. Roux advises against any caustic treatment of the throat as making a cure more difficult.

DR. JAMES A. STEUART said this was a great advance; that health officers had sometimes difficulty in distinguishing dangerous from ordinary cases.

DR. I. E. ATKINSON thought that such practical steps should be taken in Maryland.

DR. JOHN N. MACKENZIE had had great success in treating diphtheria with the dioxid or peroxid of hydrogen.

DR. JOHN MORRIS thought there should be no municipal or State control of this remedy, and referred to the poor vaccine matter furnished by the State of Maryland.

DR. I. E. ATKINSON said it was largely the fault of the profession that we did not get good vaccine matter. State and municipal duties had not been carried out. It is because the profession has not demanded it.

DR. E. T. DUKE defended the vaccine matter of Maryland and said as Health Officer of the city of Cumberland he had used it very successfully, and referred to an institution in which he had vaccinated fifty persons and forty-eight of them took.

After some discussion on the State and municipal control of the antitoxins by Drs. G. H. Carpenter, G. J. Preston, John Morris and Welsh, the subject was closed.

DR. G. H. CARPENTER reported a "Case of Puerpura Hemorrhagica," in which he advocated the use of the tincture of the chlorid of iron in large doses, say 40 drops, every two hours. He also expressed his opinion that the disease was much graver in character than was usually taught.

DR. W. J. CRAIGEN read a paper entitled "Electricity in Gynecology," in which he reported several cases treated by electricity, spoke of the use of high currents and their dangers, and referred to the possibility of resuscitation after a severe electrical shock as was suggested in New York.

DR. RANDOLPH WINSLOW reported "Two Cases of Gastrostomy for Cicatricial Stenosis of the Pharynx and Esophagus," in which he showed that the operation had saved life so far, and gave some promise in one case of ultimate recovery.

DR. GEORGE J. PRESTON then read a paper entitled "Hysterical Pyrexia" in which he showed that: 1, in hysterical individuals a rise of temperature may occur, due probably to disturbance of the heat regulating centers in the central nervous system; 2, the type of this fever is either continuous or intermittent; 3, the type of fever is characterized by its great irregularity and atypical exacerbations, by the fact that the pulse and respiration frequently remain normal, or nearly so, that the temperature is often different on the two sides of the body, by the temperature not yielding readily to antipyretic measures and by the unaltered urine and the unchanged nutrition; 4, hysteria often complicates existing fevers, changing their types; 5, the hysterical manifestations would be more frequently noted if the temperature were taken in all cases.

DR. WILLIAM H. WELCH thought that the question of fever from central nervous origin was an important one from many points. It most likely comes from diminution of heat loss and there is no evidence of increased heat production. In some cases there are remarkable irregularities in heat distribution. It may be high in the vagina and normal in the axilla and *vice versa*. By taking the surface temperature great differences may be found.

DR. G. J. PRESTON had noticed many of the points above alluded to. There may be the greatest differences between the temperature of the two sides of the body. The fever may be out of all proportion to the organic lesions and may be caused by hysteria.

DR. WILLIAM OSLER then made some remarks on

CHILLS AS A CAUSE OF ERROR IN DIAGNOSIS.

Chills differ very much in their etiology, but they may be divided into two main groups: 1, from some sudden shock to the nervous system; 2, from absorption of the toxic material formed by organisms. In the so-called nervous chill, fever is absent. In the second group, there is always fever. The first group need not detain us. The nervous chill is that met with in gall-stone colic or in the passage of a catheter. This initial chill is without fever, but subsequently there may be chills with fever due to infection. The disease most often associated with chills is malarial fever and here the chill is of a characteristic kind so that the name, "chills and fever," is synonymous with malaria. The two great diagnostic points in malaria are the invariable association of the plasmodium of Laveran and the invariable curative effects of quinin. These are the two special features of the malarial chill. It may be said that within forty-eight hours the chill will cease in genuine malaria if quinin be used. On the other hand, the paroxysms continue and under its use malaria may be excluded, except in a few cases of the autumnal malarial fevers which may resist quinin for a few days, but these have not the same character of ordinary intermittents. He had not met a single instance of genuine malarial fever which quinin had not stopped. Chills cause errors in diagnosis in various affections. In tuberculosis, the error may be made early or late in the disease, for it is at the two extremes of pulmonary tuberculosis that we have chills. These are a special feature of the early stages of tuberculosis. He has had many cases of early phthisis brought to him as malarial fever. Errors occur frequently in regions where paludism is common. Then there is the large group of septic processes with fever, such as abscess of the liver which is a common cause of chills and fever in this latitude. There are very few cases of abscess of the liver which are not at first regarded as malarial fever and thus much valuable time is lost in the treatment. Malignant endocarditis is another disease which is ushered in by chills and which is often treated for malaria. A not frequent source of error is the chill following and associated with pleurisy of a tuberculosis nature form and from empyema following the infectious diseases, as scarlet fever, etc., and following the formation of pus. The chills in typhoid fever are of the greatest importance and have attracted attention for years. They occur in 2 and 3 per cent. of all cases. Very often the chill is due to the doctor's giving powerful antipyretics. He had seen a case in which chills and fever had followed a large dose of antifebrin. In certain affections of the urinary passages and more especially pyelitis, chills occur which are often obscure. In chronic obstruction of the common duct by gall-stones there is the condition called by Charcot, hepatic intermittent fever due

to catarrhal cholangitis. In new growths of various kinds, as in cancer of the stomach, in Hodgkin's disease and lastly in syphilis, errors in the fever may be made. The important points in the diagnosis are in the use of quinin and in the examination of the blood.

Dr. John Neff reported a case of fever, in the course of typhoid fever, in which there was kidney complication with albumen and casts. The use of nitroglycerin caused much improvement.

Dr. Harry Friedenwald referred to a case of otorrhea which had high fever, and which turned out to be due to a thrombosis of the lateral sinuses.

Dr. John Morris made some interesting references to the fevers of former days and the manner of treatment.

Dr. G. H. Carpenter spoke of having seen cases of tuberculosis with fever which he thought was malarial because it occurred in a malarial district. He also said he had seen a certain number of cases of fever in the course of typhoid fever which he called typho-malarial fever.

Dr. I. E. Atkinson referred to some obscure cases with fever, and said milk fever was a thing of the past as we now know it and was not due to the condition of the milk or the breasts. Septic fever occurred in the course of typhoid fever.

Dr. J. J. Wilson referred to a case of typhoid fever in his practice in which there were several chills and finally an abscess of the parotid gland developed.

Dr. William Osler was glad to hear Dr. Carpenter's remarks about typho-malarial fever. Many physicians treat ordinary cases of typhoid fever as malarial from beginning to end. There is no such disease as typho-malarial fever. The two diseases may exist concurrently. Quinin will cure malarial fever but it will not influence typhoid fever at all. Cases of so-called typho-malarial fever are typhoid and should be treated as such. Too many lives have been lost by neglect of this caution. In nearly four hundred cases of typhoid fever which have been treated at the Johns Hopkins Hospital, in no case had malaria coexisted.

Second Day.

Dr. Thomas A. Ashby read a paper entitled "Treatment of Retro-Displacements of the Uterus," in which he reported several cases with the results of his treatment. He considered the subject under four heads: The congenital; the acquired forms without adhesions; the acquired varieties associated with inflammatory conditions of the tubes and ovaries; and those cases in which the tubes and ovaries are not involved to any extent but where the uterus is firmly attached to the pelvic peritoneum by firm bands of adhesions.

Dr. W. J. Craigen asked if he had ever had trouble with a hemorrhage after breaking up adhesions. It is not good to leave the uterus with a partially diseased stump after removal of the tubes and ovaries.

Dr. E. M. Schaeffer was glad to him hear speak of massage, and also of the use and abuse of the corset.

Dr. Ashby had never had any trouble with hemorrhage after the operation if the blood vessels are looked for and tied. He does not believe in removing the uterus unless it is diseased; then tie off the stump and disinfect it and do not remove more tissue than is absolutely necessary. This is a principle of surgery which should be followed in gynecology. Massage should always be tried first. He had seen return of the uterus to its normal position by manipulation. He believes the corset is a cause of trouble, but can Dr. Schaeffer tell us how to avoid it?

Dr. R. W. Johnson then read a paper entitled "Wandering Kidney with Report of a Case of Nephrorrhaphy," in which he spoke of the importance of a correct diagnosis, and the ease of making it, and the causes. He related a case which had passed through the gynecologist's hands and had lost both ovaries without feeling better. He found a wandering kidney which he fastened in place and the case recovered.

Dr. Ohr referred to cases in his practice, and spoke of the difficulty of making a diagnosis of floating kidney in stout persons.

Dr. R. W. Johnson would not advise removal of the kidney unless there was some good reason for it. He is in favor of conservative surgery and referred to removals of the vermiform appendix. He did not advise operation for hernia as long as the truss will retain the hernia and as long as the case is in a civilized region where trusses can be found and operations done in an emergency.

Dr. E. M. Schaeffer then made some "Observations on the Use of Food as Medicine," which was a very practical paper showing the importance of using the proper food both in health and disease and the necessity of cooking it in the right way. He showed charts illustrating the comparative values of food by weight and nourishment and made some strong objections to the dress of woman.

Dr. E. N. Brush said that persons should be taught not only what good food is, but how to purchase it and how to cook it.

Dr. S. J. Fort said that he treated epilepsy and imbecility by giving the proper food.

Dr. W. B. Canfield said that while it was eminently proper to insist on nourishing food, many persons preferred to eat what they liked rather than what was good for them and in making a diet list, palatability should be considered. Many a person, sick or well, preferred a savory dish even if not so nourishing or digestible, and often its palatability made it more digestible in spite of chemistry and physiology to the contrary. The diet of rice as pointed out by Dr. Schaeffer may be very nourishing, but it was also constipating and not to be borne by many. He noticed that little reference was made to the use of sugar in food. He thought that the craving of children and some adults for candy was a natural one, and he did not think that good candy in moderate amount was injurious.

Dr. G. H. Carpenter said he knew more about cattle raising than he did about bringing up a healthy race and the former was much easier. He agreed with Dr. Canfield in what he said about palatability. It is important to gratify the appetite when no actual harm is done.

Dr. T. A. Ashby said that disease in woman was divided into two classes; that in the married and that in the unmarried. In the sterile woman the disease is generally from some defect formed in childhood. Then hygienic measures are important. About 90 per cent. of the diseases in childbearing women are due to childbirth. Sexual selection is ideal and so are the charts which were here shown.

Dr. Schaeffer said in conclusion that rice constipated because it was so thoroughly digested that there was little residue. There is no waste as in other foods. Rice properly cooked formed a very palatable dish. The Chinese recognized the value of rice when they ate rice and butter.

Dr. E. N. Brush then read a paper on the "Treatment of Insomnia," in which he deplored the multiplication of hypnotics which had been encouraged by physicians so much of late, and spoke of natural methods as inducing sleep. He referred to baths, proper clothing and attention to general hygiene.

Dr. Schaeffer agrees with Dr. Brush and thinks that attention to food and drink will often take the place of drugs as he had already shown in his paper.

Dr. S. J. Fort then read a paper entitled "Pseudarthritis," in which he related cases of hysterical joint trouble in children, simulating rheumatism.

Dr. William B. Canfield then read a paper on the "Treatment of Pulmonary Consumption in Large Cities," in which he referred to the great advances in the pathology of that disease and the failure to find a specific remedy. He said that cod-liver oil and tonics were still relied on in most cities. Out-door life, equable climate, good food, comfortable clothing, slight occupation in some cases do more than drugs. With our present light the proper treatment of consumption in large cities, especially the incipient cases, was in small hospitals where each case could be studied.

Dr. H. Friedenwald then read a paper entitled "Spring Catarrh of the Conjunctiva."

Dr. E. M. Schaeffer then read a paper on "Dirty Air in Public Places," in which he spoke of the necessity of good ventilation.

The papers by Dr. George Thomas, "Illumination of the Accessory Nasal Cavities," and by Dr. J. T. Smith on "Acute Pericarditis" were read by title. The profession of Cumberland and vicinity were very cordial to the visiting physicians.

Mississippi Valley Medical Association.

Abstract of the Proceedings of the Twentieth Annual Meeting, held at Hot Springs, Ark., Nov. 20–23, 1894.

(Continued from page 834).

The Importance of Urinalysis in Diagnosis.

By Dr. A. B. Walker, of Canton, Ohio. If physicians and surgeons would avail themselves of this important aid to diagnosis, much more good could be accomplished to their patients, many a life spared and thousands of dollars saved life insurance companies. As urinalysis requires but a few

moments of time, and the results from it are so positive and true, the author felt that no opinion of a case of any importance should be given without there having been made a careful examination of the urine. Many a case of Bright's disease might be prevented if, when the first symptoms of the disease manifest themselves, a careful examination of the urine be made and the proper treatment and diet prescribed. An interesting case was cited in point.

In every case where ether is to be given as an anesthetic, a careful examination of the urine should first be made to determine the condition of the kidneys, when if they show the least symptom of disease it should not be given, for it is known to exert an unfavorable influence upon them. Many cases of transitory albuminuria are noticed after ether has been administered, proving that it does affect the kidneys. When the kidneys are in an advanced stage of disease, the ether is likely to cause a congestion of the organs and thereby prevent the elimination of urine, when death will surely be the result. The author is surprised that all life insurance companies do not require an examination of the urine even for their small risks. He believes the time is not far distant when they will see the necessity of it and demand it in all cases.

DR. A. M. OWEN, of Evansville, Ind., read a paper entitled "My Experience with Gold as a Therapeutic Agent."

SECOND DAY—AFTERNOON SESSION.

DR. STARLING LOVING, of Columbus, Ohio, read a paper entitled

PHYSICIANS' PRESCRIPTIONS.

He said in but few medical schools of the present day—of this country, at least—is the theory and art of prescribing taught or even mentioned. Hundreds of bright, enthusiastic young men, full of knowledge of other departments of professional learning, and of hope and ambition, are turned out every year without having had even a hint of the difficulties which they must encounter when they essay their first prescription. We seldom read of mishaps from defectively written prescriptions in England, Germany or France, where requirements are larger and more systematically taught. When such occur, the apothecary is usually to blame. The same lack of method and carelessness, notable in the writing of prescriptions is to be found in the combining of medicines in the various forms. Sufficient attention is not always given to compatibilities, chemic and therapeutic, to solubilities, the influences of light, temperature, the air, and of other circumstances affecting the condition of drugs and chemicals. Many failures in treatment and many accidents, some serious in character, result from carelessness or want of accuracy in the directions given to nurses and patients for the administration of medicines after they have been brought ready for use. Why should the medical profession of the United States, in other respects so quick to see their own advantage, so sagacious in diagnosis, so bold in operating and in treatment, neglect so important a branch of knowledge as the theory and art of prescribing? The answer is, carelessness on the part of teachers and pupils.

DR. WILLIAM F. BARCLAY, of Pittsburg, read a paper entitled

TOXICS.

After defining a poison, the author said it may seem strange that almost all toxics are innocent, until they reach the circulation of the blood. Their slow or rapid absorption largely determines their deleterious effects upon the system. In our observation we are reminded, from time to time, of the idiosyncrasies of individuals and we seldom inquire into the causes of these peculiar conditions. It is generally attributed to a perversion of the nervous system, but in truth is caused by a rapid absorption of the poison, and is modified by the power of resistance inherent in the individual. Toxics enter the circulation of the blood, and their action on the normal cells produce toxins, and the multiplication of these products bring on pathologic conditions. Nothing is more easily demonstrated than that the emunctories throw off toxics. We observe at once upon the entrance of a toxic into the circulation of the blood that all the functions of the body are impaired to a greater or less degree, and that definite poisons are quickly formed, such as ptomaines, leucomaines, and others, which is nothing more or less than an altered nutrition. The vital forces are at once disturbed or arrested. Primarily the circulation, and secondarily, the nervous system are impaired, and a condition termed shock is superinduced. In the state of shock, nature seems intent upon relieving herself of all effete matter, by the discharge of the contents of each viscus of the body. All such efforts should be assisted by artificial means in restoring a healthy condition. Vigorous health and strength are maintained by proper food, perfect digestion with healthful environment.

QUININ IN THE TREATMENT OF CHOREA.

By DRS. FRANK R. FRY and M. A. BLISS, of St. Louis. The writers briefly reviewed Prof. H. C. Wood's theory of the causation of chorea as set forth in a paper on "The Choreic Movement," which was published in the *Journal of Nervous and Mental Diseases*, April, 1893. He therein advanced the suggestion that chorea is due to disturbances in the spinal inhibitory apparatus, which he supported by a highly scientific argument. He made the further practical suggestion that inasmuch as quinin had been found physiologically to stimulate spinal inhibition in animals, the drug be given to dogs, and the human subject affected with chorea. In this direction he had made a few trials with very gratifying results. Although his opportunities for observation had not been many at the time he published his communication, they were of such a nature as to encourage others to use quinin in treating chorea. The writers cited the results of other clinicians who had been using it, wherein it was found that the drug had had a decidedly beneficial effect. They then recited a number of their own cases from clinic and private practice in the treatment of which they have been using quinin. Their results confirm those of Dr. Wood and others. They called attention to the fact that they had not used as large doses as others, yet had very satisfactory results. They raised the question whether the effect of quinin in this disease is due to the *modus operandi* suggested by Dr. Wood, viz., its stimulating effect on the spinal inhibitory apparatus, and not to some other effect. They suggest that this drug has a decided value in the treatment of certain infectious diseases in which class, according to the opinion of some authorities, chorea belongs. They further suggested that drawbacks may be found in giving quinin in large doses to choreic patients, inasmuch as it sometimes produces unpleasant nervous phenomena, and especially in nervous or neurotic individuals. They met with no inconveniences of this kind so far in the choreic patient, to whom they had administered it. In fact, they stated they could confirm an observation made by others to the effect that these patients are not apparently easily cinchonized.

While they have witnessed decided and, as a rule, only beneficial effects from the drug in these cases, they concluded that more data must be collected before its final status may be determined upon. With this end in view they have been keeping and would continue to keep careful notes of all their cases to which quinin was given. An interesting item of the paper was the citation of a severe case of chorea which after resisting other remedies, promptly recovered on full doses of quinin, the notes of which were published by Dr. Fry in the *Weekly Medical Review*, June 15, 1889, five years ago.

REFLEX IRRITATION AS A CAUSE OF DISEASE.

By DR. EDWIN WALKER, of Evansville, Ind. The essayist said that no error in modern times has had such tenacious hold on the professional mind as that of reflex irritation as a cause of nervous disease. In fact, to most of us the explanation of the occurrence of any nervous phenomenon or lesion is satisfactorily accounted for, if some peripheral irritation is found. A long prepuce, some slight version, flexion or laceration of the uterus or other deviation from the picture in our charts, is sufficient to account for hysteria, epilepsy, or other nervous disease. The reflex theory dates back many years. Early in this century it was offered as an explanation for certain neurotic phenomena, but its prominence in the medical mind of to-day is due to the lectures of Brown-Sequard on the "Physiology and Pathology of the Nervous Centers," delivered in London in 1858. The essayist then alluded to the contributions of several other prominent writers in regard to reflex irritation as a cause of disease, and said that for nearly twenty years he had thought much of this question, his attention being first called to the articles of Sayre. He followed his advice and did many circumcisions, and later, mainly through the teachings of Emmet, did operations on the cervix and vagina; he has observed many cases of neuroses in women presenting various lesions of the genital tract, and states that he has never seen a case of epilepsy, insanity, catalepsy, hysteria, or grave neurasthenia, or any organic disease of the nervous system cured or even permanently benefited by any operation on the genital tract, either done by himself or any one else. He has also noticed that a large proportion of patients who consult us for diseases of the genital tract do not suffer from defi-

nite nervous disease; and on the other hand, that of patients who do consult us for nervous diseases, many and perhaps most of them are free from genital disease. In a given case in which we find genital irritation and nervous disease, a careful inquiry into the case will develop other more potent causes. The writer does not deny that lesions of the genital tract may not in some way derange the nervous system, but insists that it does not do so by reflex action. For example, a woman has a bad laceration of the perineum that interferes with her locomotion; it is difficult or painful for her to go about, her life becomes sedentary, she suffers with constipation, later, dyspepsia from her inactivity, then her general system suffers from deficient nutrition as well as the want of healthful exercise. The nerves are not nourished and disease is engendered. Or a patient has some disease of the abdominal viscera, perhaps he has intestinal indigestion and nervous symptoms—a very common thing. Are we now to say that his nervous disease is reflected from his bowels? Certainly not. The lack of proper digestion and assimilation of food starves the system or by auto-infecion poisons it.

Dr. Harold N. Moyer, of Chicago, read a paper entitled "Accidents and Injuries from Electric Currents of High Potential."

Third Day—Morning Session.

Dr. Frank P. Norbury, Jacksonville, Ill., read a paper entitled

the mental symptoms of cerebral syphilis; a clinical study.

He drew the following conclusions:

1. Somnambulism and allied states; lapses of intelligent conceptions with associated loss of memory are mental symptoms of cerebral syphilis.

2. Sudden somnolence with ocular spasm or paralysis point to syphilis, when preceded by headache and monoplegia is almost pathognomonic. Headache, quasi-periodical, as defined by Gray with marked insomnia, suddenly ceasing and followed by psychic disturbance is due to syphilis.

3. Melancholia or mania when following periodical headaches, insomnia, or somnolence; *a*, with ocular spasm or other form of monoplegia or heterogeneous paralysis is due to syphilis; *b*, pseudo-paranoia. By this, he means cases presenting all symptoms of paranoia; systematized delusions depending on hallucinations of sight, hearing, taste or smell with slight impairment of general mental functions are due to syphilis, as we know that syphilis causes isolated local losses of power, and it is noteworthy when the special senses are involved that mental derangement usually results; *c*, pseudo-paresis, characterized by fibrillary tremor of tongue, indistinct speech (partial or complete aphasia), uncertain and trembling gait, with delusions of grandeur, and occasional outbursts of maniacal excitement, papillary involvement—all characteristic symptoms of paresis—but which yield readily to anti-syphilitic treatment, we can say are due to syphilis.

4. Class 4 have epileptiform and apoplectiform attacks. We find cases in which treatment was undertaken too late. The symptoms are those of terminal dementia, only occurring in patients of previous sound mental condition and with no special hereditary history.

Dr. Chas. B. Parker, of Cleveland, Ohio, contributed a paper on

the surgical treatment of injuries of the head,

in which he presented the following conclusions:

1. In any case of doubt as to the character of a head injury, explore by incision, if necessary.

2. In the case of wounds, especially the smaller and punctured, enlarge them for exploration and cleansing.

3. In all cases of fracture, depressed or fissured, operate, elevating the depression and exploring the fissure for a depression of the inner table which so often occurs.

4. Leave principal fragments of bone after elevation, if surgically clean, even if entirely detached from the dura mater and pericranium, thus averting cerebral hernia, vertigo and other cerebral disturbances.

5. All these operative measures should be conducted under the most rigid aseptic and antiseptic measures.

Dr. Geo. N. Lowe, of Randall, Kan., read a paper entitled

traumatic lesions of cranium and brain,

in which he reported four interesting cases. The first case was one of depressed comminuted fracture of the right parietal bone at the junction of the temporal bone, caused by the kick of a horse. There was also a contused lacerated wound of all the soft tissues along the entire ramus of the left inferior maxillary. In this case the author trephined and elevated the depressed comminuted bone fragments. Recovery.

Dr. B. Merrill Ricketts, of Cincinnati, read a paper entitled

(a)—castration for hypertrophied prostate; (b)—removal of head of femur for dislocation into lesser sciatica notch; (c)—trephine for pressure as a result of fluid in acute cerebral meningitis.

In the case of castration for hypertrophied prostate, the author said he was inclined at first to make a suprapubic operation, possibly combining the suprapubic and perineal. After thoroughly considering the matter and explaining to the patient the probable results of the various operations, he decided to remove the testicles. After having the patient under observation for ten days, he proceeded to operate, removing the testicles. The arteries were torsioned, the wound closed and integument coapted with a continuous silkworm gut suture. The patient rallied well from the chloroform and suffered no inconvenience or pain thereafter. The wound was examined on the fourth day and primary union was found to have taken place. The patient left Dr. Ricketts' private hospital at the end of the sixth day. On the second day after the operation the patient told him that he could urinate with greater ease, and that the pain was slight; that he could sleep four hours at a time during the night, whereas formerly he had been getting up once every hour. This condition continued to improve during the patient's stay in the Doctor's hospital.

Case 2 was reported to show how little is known of what takes place within a mass of muscular and adipose tissue. It has been said that all operations upon the abdomen are exploratory, and it might be well said that positive diagnoses can not be made in cases of fracture or dislocation without an exploration. The question therefore arises, What is our duty to ourselves and our patients in these complicated fractures and dislocations, where doubt exists as to their character? Especially may this question be asked where the results are not what might have been expected.

tumor albus of the knee joint.

This paper was read by Dr. William E. Wirt, of Cleveland, Ohio. The object of the paper was to present a summary of the points to be observed in the treatment of tumor albus of the knee joint, and to call attention to the fact that most excellent results are obtained by the use of conservative measures. The author classified the treatment under the two headings of constitutional and local measures, and the local under the subdivisions of conservative and operative treatment. The author first considered constitutional treatment, and then the local treatment which he divided into the conservative and operative. The conservative measures to be carried out in the treatment of this affection are counter-irritation and local applications, fixation, protection, extension, rest, and correction of deformity. These were considered under their respective heads. Of sixty cases under the expectant plan, 60 per cent. had motion. Of 145 cases under the fixation plan, 76 per cent. had motion, and of 37 cases under the protective plan, 95 per cent. had motion. Of 227 cases only 15 recovered with a deformity at an angle under 135 degrees, and 141 had an angle of deformity not less than 165 degrees. This enabled them to walk with their limbs practically straight, and with scarcely any appreciable deformity.

Dr. A. H. Meisenbach, of St. Louis, read a paper entitled

resection of the knee for separation of the lower epiphysis of the femur.

The case was of two years' standing in a patient 13 years of age. The author said separation of the epiphysis is a condition that may occur either on account of trauma or disease. There seems to be a difference of opinion by writers as to the frequency of its occurrence, especially as the result of trauma. As the result of disease of the bones—osteomyelitis, it is considered a not infrequent accident. Traumatic separation of the lower end of the femur occurs in about from one-fifth to one-third of all the reported cases, and in the majority of instances previous to the sixteenth year, seldom later. The forces that are necessary to produce this separation are various. Thus during child-birth, traction may produce it. Volkmann states that he has produced it when the hip is diseased, when making rotation in seeking for crepitation, or extension in the application of plaster-of-paris dressings. Other forces are indirect external vio-

lence, usually of a twisting character, or lateral, or at right angles to the axis of the limb. The readiness with which the dislocation of the separated diaphysis into the popliteal space occurs can be explained; 1, on account of the anatomic structures of the surrounding parts; 2, the force and position of the patient, the popliteal space being in the direction of least resistance, while on the anterior aspect we have the quadriceps tendon, the patella, and the ligamentum patella. The occurrence of pathologic separation of the epiphyses is regarded by the latest writers on surgical pathology and diseases of the bones as a not infrequent accident in diseases of the bones and joints. It is noted in osteomyelitis of the long bones.

DR. J. E. LINK, of Terre Haute, Ind., read a paper entitled "Colles' Fracture," which will appear in the JOURNAL at an early day.

THIRD DAY—AFTERNOON SESSION.

DR. J. H. KELLOGG, of Battle Creek, Mich., demonstrated by diagrams and illustrations the deformities of American women resulting from neglect of physical exercise and the conventional mode of dress.

DR. C. R. HOLMES, of Cincinnati, read a paper entitled "Diseases of the Accessory Nasal Cavities; their influence upon the Organs of Sight; Modern Surgical Treatment with Report of Cases."

DR. W. C. WEBER, of Cleveland, Ohio, read a paper on

HYDROCELE.

The author first dwelt upon the anatomy of the testis, and then alluded to congenital hydrocele. He said that this form results from an imperfect closure between the cavities of the tunica vaginalis and the peritoneum. It is most frequently met with in children and can be demonstrated by inverting the child or by elevating and compressing the scrotum. During this manipulation the liquid passes into the abdominal cavity where it can be retained by making pressure over the external rim. Considerable care should be exercised in dealing with this form of hydrocele, as it not infrequently happens that a loop of the intestine has also found its way down and is liable to serious injury from pressure. The treatment of the congenital form is usually simple and satisfactory. Having reduced the tumor by the above manipulation, all that is required in most instances is continuous pressure over the external ring for a time when adhesion soon occurs. Other plans of treatment consist in the use of discutients of various kinds, acupuncture and tapping. Acquired hydrocele occurs in children and most frequently in early adult life. Its cause is not always known, though traumatism is probably the most constant factor in its production. Having diagnosticated a hydrocele, how shall it be treated? This depends mainly on the size of the tumor and its age. In a hydrocele of small or ordinary size, and the date of its origin recent, an evacuation by means of a small trocar and canula may be all that is necessary to accomplish a cure. Should this fail in its purpose, it becomes necessary to adopt measures whereby sufficient irritation of the tunica vaginalis may be produced to secure inflammatory adhesion of the opposing surfaces. This end is usually attained by the injection of the tincture of iodin, alcohol, carbolic acid, perchlorid of iron and other substances into the sac after the removal of its adventitious contents. Among other methods of treatment may be mentioned excision, incision and the seton. The seton and incision should rarely or never be employed in the opinion of the author. The author then reported a case in which he used carbolic acid, which illustrated very nicely what can be done in the way of radical treatment in apparently extreme cases. The result was very satisfactory.

TREATMENT OF TRAUMATIC CATARACT ATTENDED WITH RAPID SWELLING OF THE LENS.

By DR. JAMES M. BALL, of St. Louis, Mo. For years the subject of traumatic cataract has been the *bête noir*. Cases of lenticular opacity caused by a foreign body which remains within the eye are always extremely dangerous, owing to the introduction of pathogenic germs on the one hand, and the danger to the sympathetic ganglia on the other. Such cases must always remain the opprobrium of ophthalmology. There are many cases, however, of traumatic cataract attended by rapid increase of intra-ocular tension, with the production of iritis or irido-cyclitis, and ultimate excavation of the optic nerve head in which the foreign body either lodges in the lens or is withdrawn at the time of the accident. It is concerning such cases that the author desires to speak. For many years the practice of the profession has been to rely upon the use of atropia if the symptoms were not severe and to perform linear extraction if the symptoms be acute. Linear extraction, the author considered a relic of that barbarous surgical age when antisepsis was unknown. Performed for the purpose of relieving undue tension and evacuating the lenticular fragments, the very nature of the operation has been such as to diminish the first only temporarily and defeat the second frequently. The situation of the corneal incision has been such as to preclude the possibility of removing all the fragments of the swollen lens. The oblique course of the wound has rendered its patency impossible while favoring its closure. Furthermore, the incision made by the ordinary keratome is too short.

The proposition the author desired to advance was this: In cases of traumatic cataract with rapid increase of intra-ocular tension, an operation should be performed, and that operation should not be linear extraction, but an extraction made with the Graefe knife, and with the incision located in the corneo-scleral junction. The knife should cut from one-third to two-fifths of the corneal circumference, according to the extent to which the softening process in the lens has advanced. If glaucomatous symptoms supervene with softening of only a small part of the lens, the corneal incision should be large. If the softening involved the whole of the lens, the incision should be of less extent. The extent of the incision in the cornea, as far as healing is concerned, is of little importance provided we make an aseptic operation. The chief merit of the operation lies in the avoidance of the valve which is produced by the linear methods. In other words, the author's method permits of free evacuation of all the lenticular substance with the least amount of traumatism. An iridectomy is not made. All *debris* is removed at once. This can not be accomplished by the linear method. The author then reported two very instructive and interesting cases.

DR. LEWIS C. CLINE, of Indianapolis, Ind., read a paper entitled

SOME OBSERVATIONS ON SORE THROAT DUE TO CONCRETIONS IN THE TONSILS,

in which he said every experienced practitioner can recall cases of recurring tonsillitis or sore throat that often develop without any apparent cause, but which were doubtless due to chronic inflammation of the follicles, altered and retained secretions. It was to this class that he invited attention. The symptoms of these cases are not as a rule very prominent, and are not confined to cases where the tonsils are much enlarged, but are often found in patients from whom they have been partially removed or have sloughed away by repeated attacks of inflammation or quinsy. The author's remarks dealt more particularly with the cheesy bodies and not the calculi which are probably the outgrowth of the long retained cheesy deposits acting as a nidus for the deposit of the more solid materials, as phosphate and carbonate of lime, iron, soda and potassa, etc. The soft or cheesy deposits vary in size from that of a pin head to a grain of wheat, and consist of epithelium, pus corpuscles, bacteria and chalk. These troublesome concretions are found more frequently in the small tonsil, or where there is scarcely any tonsil to be seen, for the reason that in the larger tonsils there is more pressure brought to bear on them and they are kept squeezed out. These concretions are doubtless the result of a catarrhal condition of the mucous lining of the follicles, coupled often with a uric acid diathesis. Some writers believe them to be parasitic in origin.

These concretions predispose to attacks of quinsy, and in the author's judgment are the cause of the majority of these cases, and they can be permanently cured by carefully hunting out and destroying all the crypts and pockets in which these bodies are formed. The author reported several interesting cases which emphasized the point that he wished to make, viz, that perverted secretion of the follicles of the tonsils from catarrhal inflammation resulting in cheesy concretions, which remain as a smoldering fire ready to be fanned into a flame by the least exposure, is the cause of more sore throats and quinsy in adults than any or all other causes combined.

DR. CHAS. H. BEARD, of Chicago, read a paper entitled, "Squint with Especial Reference to an Operation."

(To be continued.)

Bequests to Medical Institutions of Philadelphia.—By the will of the late Dr. William Goodell, of Philadelphia, the sum of $50,000 is donated to the Medical Department of the University of Pennsylvania. The College of Physicians will from the same source fall heir to $10,000. Dr. Goodell was the eldest son of a veteran missionary to Turkey, and himself practiced medicine for several years at Constantinople.

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SATURDAY, DECEMBER 8, 1894.

THE PRESIDENT'S MESSAGE.

PRESIDENT CLEVELAND'S message makes the following recommendation to Congress concerning a Public Health Establishment:

"I am entirely convinced that we ought not to be longer without a National board of health or National health officer charged with no other duties than such as pertain to the protection of our country from the invasion of pestilence and disease. This would involve the establishment, by such board or officer, of proper quarantine precautions or the necessary aid and counsel to local authorities on the subject, prompt advice and assistance to local boards of health or health officers in the suppression of contagious diseases, and in cases where there are no such local boards or officers, the immediate direction by the National board or officer, of measures of suppression, constant and authentic information concerning the health of foreign countries and all parts of our own country, as related to contagious diseases, and consideration of regulations to be enforced in foreign ports to prevent the introduction of contagion into our cities and the measures which should be adopted to secure their enforcement.

"There seems to be at this time a decided inclination to discuss measures of protection against contagious diseases in international conference with a view of adopting means of mutual assistance. The creation of such a National health establishment would greatly aid our standing in such conferences and improve our opportunities to avail ourselves of their benefits. I earnestly recommend the inauguration of a National board of health or similar National instrumentality, believing the same to be a needed precaution against contagious disease and in the interest of the safety and health of our people."

The PRESIDENT thus compliments the Bureau of Animal Industry of the Agricultural Department, and its accomplished chief, DR. SALMON:

"The scientific inquiries of the Bureau of Animal Industry have progressed steadily during the year. Much tuberculin and mallein have been furnished to State authorities for use in the agricultural colleges and experiment stations, for the treatment of tuberculosis and glanders. Quite recently this department has published the results of its investigations of bovine tuberculosis, and its researches will be vigorously continued. Certain herds in the District of Columbia will be thoroughly inspected, and will probably supply adequate scope for the department to intelligently prosecute its scientific work and furnish sufficient material for purposes of illustration, description and definition. The sterilization of milk suspected of containing the bacilli of tuberculosis has been, during the year, very thoroughly explained in a leaflet by DR. D. E. SALMON, the chief of the Bureau, and given general circulation throughout the country."

It is very apparent from the PRESIDENT'S words that he would lose no time in approving an act establishing a Department of Public Health.

A GREAT WORK ON YELLOW FEVER.

We are pleased to announce that this JOURNAL will soon commence the publication as a serial, of the "Original Investigations on the Natural History of Yellow Fever (Symptoms and Pathology) 1854 to 1894," by PROFESSOR JOSEPH JONES, of New Orleans. The work, as a whole, is devoted to the record and elucidation of carefully conducted observations on the temperature, pulse, respiration, black vomit, *post-mortem* temperature and other phenomena of yellow fever.

In 1859 PROFESSOR JONES presented to the AMERICAN MEDICAL ASSOCIATION an elaborate record of similar investigations in regard to malarial fever. The forthcoming series is more elaborate, and it will be apparent to our readers as the articles appear, that the labor involved in their preparation has been incessant for a period of more than forty years, and has rarely been surpassed by any one. Fragmentary extracts of some of these articles have appeared from time to time in various medical journals, but the ASSOCIATION JOURNAL alone will publish the whole investigation, which is a storehouse of information on the subject. The expense of the laboratory and the necessary library has been borne by the author during all these years, and the American medical profession will be the gainer by his self-sacrificing labors.

It may not be improper to mention in this place that PROFESSOR JONES was himself prostrated by the disease during the great epidemic of 1878, and the attack was followed by a malignant carbuncle which left him much prostrated for a considerable period.

In concluding this advance notice we can only say, and we feel that we simply voice the opinion of the whole ASSOCIATION when we say: Honor to our distinguished fellow member, the learned DOCTOR JOSEPH JONES, of New Orleans.

"THE VIRCHOW-BEHRING FEUD."

If further argument were needed for the immediate creation of a National Diphtheria Commission for the investigation and report on the antitoxin treat-

ment of MM. ROUX and BEHRING, it is to be found in the results of the unfortunate feud between HERR BEHRING and PROFESSOR VIRCHOW. Stung into a wholly unnecessary access of passion by VIRCHOW's conservative and somewhat critical attitude toward the serum treatment, BEHRING made a bitter attack upon the eminent and popular scientist, and, with singularly poor taste and judgment, selected a pronounced political journal as the medium for the publication of his diatribe. VIRCHOW's half century of scientific work needs no defence and his high character is proof against attack; nevertheless, the Berlin Medical Society deemed it incumbent to formally declare that "it is necessary we show that we feel an indestructible thankfulness and veneration for VIRCHOW and behold him with pride at our head." VIRCHOW thanked the Society, expressing the hope that, for such a cause, such expression would never be called forth again, and it was believed the affair was ended.

A cable dispatch of the 3d inst., however, announces that VIRCHOW's assistant, DR. HAUSEMANN has informed the Berlin Society of his intention to contest PROFESSOR BEHRING's claims of the curative and prophylactic properties of the antitoxin—mentioning several cases in which patients had died, although, as alleged, they had received the injections in the prescribed quantities and within the defined period of the attack; he also challenges the accuracy of the published statistics, averring that no cure of proved diphtheria by the serum treatment has yet been substantiated, while, on the other hand, "there seems reason to believe that the serum causes kidney diseases, pains in the joints, fevers and other ailments." Making due allowance for partizanship, it still remains that HAUSEMANN's notification gains significance from his association with PROFESSOR VIRCHOW; that the Professor has probably sanctioned his assistant's action; and that, therefore, the verdict of the profession on the claims of the new treatment—which seemed to be crystallizing into one of unanimous approval—may be seriously delayed.

For the benefit of the medical profession of this country, as well as for the probable benefit to the public, which is now suffering from an unwonted prevalence of diphtheria, this verdict should be arrived at as speedily as may be, and with all the weight and authority that a National Commission of competent investigators can give.

Let there be created a Department of Public Health!

LOCATION OF CONTAGIOUS DISEASE HOSPITALS.

One of the vexed questions in sanitary administration is the one pertaining to the location of hospitals for contagious diseases. The matter has been recently brought to the surface in Washington City in a most unpleasant way.

As is well known, the unfortunate residents of the Capital City have no voice in the selection of their rulers, the right of suffrage being denied them. The natural consequence is that the District Commissioners pay little or no attention to the wishes of the people, and like the late Mr. Vanderbilt, when any of their acts meets with popular disapproval they snap their fingers and say with much unction: "The public be d—d." One of the handsomest parts of the city, one having one of the finest views about Washington was chosen by the Commissioners as a site for the new contagious disease hospital. Naturally, the property owners in the vicinity, whose real estate is damaged by this action are indignant, and a public mass meeting has been held to denounce the Commissioners' action. The action of the Commissioners is considered all the more irritating and arbitrary, as there are many acres of equally salubrious land on the brow of the hill between the Bladensburgh road and the Almshouse, not near desirable residence property, and far enough away from the other charitable institutions to prevent conveyance of infection to the inmates, and at far lower prices.

Congress is confidently appealed to by the citizens to prevent the consummation of this scheme.

No municipal government has the right to disregard the welfare and property rights of citizens in selecting sites for these necessary institutions, and as all citizens of the United States are directly interested in all that makes the Capital better and more estimable, we desire to express our opinion on this question, as citizens and sanitarians, to the effect that the proposed site should be abandoned and that right speedily.

Let there be created a Department of Public Health!

CORRESPONDENCE.

Letter from Vienna.

VIENNA, Nov. 18, 1894.

To the Editor:—As the Behring remedy for diphtheria is causing a great commotion in medical circles throughout Europe, and probably also in the United States, it may be of interest to inform your readers of the status of the remedy on this side of the Atlantic, in so far as it is possible to get at the facts.

I made daily visits until a few days ago, for three weeks at Professor Koch's barracks in Berlin where Dr. Kossel is conducting the treatment of diphtheria patients with Behring's blood serum, and am happy to be able to say that, in the main, the treatment of his cases has been followed by satisfactory results while the work there has aroused the interest of European physicians. Every day a number of different foreign physicians are to be met there who have come to investigate the progress of the treatment, and its results. Dr. Kossel asserts positively that nearly every case sent to him thus far before the third day of the disease, has recovered, but with each successive day's delay the chances of recovery are greatly diminished. In other words, to get the full benefit of the treatment the "serum" should be injected within the first three days after the invasion of the

disease. The first case he lost was one that came to him on the seventh day and died of a mixed infection, streptococci having invaded the child's blood.

One day on entering the ward we found three children breathing through tracheotomy tubes, aged respectively 2, 4 and 7 years. The Doctor explained that the 2-year-old child was on the point of suffocating when he entered the barracks; the 4-year-old child came to the hospital on the sixth day. His larynx was involved at the time and before the serum had had an opportunity to retard the progress of the disease, stenosis occurred and tracheotomy became necessary. The 7-year-old child was brought in on the third day with a thick membrane in the larynx; his parotid glands were greatly swollen. In this instance, Dr. Kossel conjectured that the disease was of longer duration than was known. All three recovered.

One of my colleagues expressed surprise that tracheotomy was still necessary with this treatment. The explanation given was that in some cases the laryngeal stenosis comes before the remedy has had time to influence the disease, as in the case above mentioned. In other instances the patients were so profoundly poisoned that the membrane continued to form for hours after the serum was injected and during this time stenosis could occur. This made it necessary in a percentage of cases to use the tube.

The percentage of recoveries in the barracks since August, when the blood serum treatment was introduced was 85; before August 1 recoveries were 40 per cent. Out of twenty-five tracheotomies 55 per cent. recovered. He also mentioned that of fourteen tracheotomies in children who came under treatment before the third day, twelve recovered.

Roux, of Paris, states that the mortality rate in the children's hospital there was reduced from 55 to 26 per cent. since the Behring treatment was introduced.

In Vienna, the serum was used in a case of puerperal fever, although Behring claims that the remedy is only to be relied upon to attack the germs of diphtheria. The patient is recovering. How much the serum influenced the disease one can not tell, although her temperature has steadily descended.

The treatment is simple; Koch's syringe is used for the purpose; ten cubic centimeters of the serum are injected below the axilla, where the connective tissue is quite loose. *Asepsis strictly observed.* The temperature in nearly every case begins to descend in from eight to twenty hours. There is no reaction after the injection. No elevation of temperature or discomfort to the patient occurs.

The injection is repeated after twenty-four hours *if no improvement is noticed* in the patient, and may be repeated daily if necessary. Usually, however, the first injection is followed by decided improvement within twenty-four hours, and in the milder cases one injection is sufficient to stay the progress of the disease. After twenty-four hours the membrane softens and in many cases comes away in shreds. No other medicines are given, except to weak patients who are supplied with an abundance of wine, milk and beef tea. Behring says the serum is a *specific* for the destruction of the diphtheria germ *only*, and if complications arise in the case as a result of a *mixed* infection his treatment should not be held responsible for it, as diphtheria is a disease peculiarly liable to be accompanied by a mixed infection; other germs finding an infective atrium in the naso-pharynx, larynx and bronchial tubes. Any complications appearing must be treated by the usual methods, but so long as diphtheria germs are discernible the serum is to be used *to destroy them.*

He also wishes to have it understood that the remedy is not a poison like Koch's tuberculin, but an *antitoxin*, being the blood serum of an animal (horse or sheep) that has successfully stood inoculation with the diphtheria culture. He claims to have found small "bodies" in the blood serum of such animals which he says are antagonistic to the diphtheria germ. He calls them "Heil Köfer" and claims to have proved his discovery by repeated experiments upon lower animals. As the remedy is considered an antitoxin, many of the most prominent members of the profession in Berlin, Vienna and Paris say that the remedy can not injure the patient and ought to be thoroughly tried in view of the fact that such remarkable statistics have been presented in its favor by thoroughly competent and well-known physicians of Germany and France.

Yours truly,

F. C. SCHAEFER, M.D.

The Discoverer of Anesthesia.

ATHENS, CLARKE CO., GA., Nov. 26, 1894.

To the Editor:—Dr. Ephraim Cutter, in his note to the JOURNAL of November 17, says the rotunda of the Capitol contains a statue of Dr. "J. D. Crawford," the discoverer of ether in 1842. This note is replied to by Dr. W. H. Sharp, of Parkersburg, W. Va. Dr. Sharp's note is on the right track. Dr. Crawford W. Long used ether as an anesthetic in 1842 in Jefferson, Jackson Co., Ga., eighteen miles from Athens, to which fact a number of old citizens of Jackson County will testify. It was first used for surgical purposes on a man named Venable, and a member of this same Venable family lived near Jefferson, Ga., for several years previous to 1842.

Both in Jackson and Clarke Counties the young people at parties would call for volunteers to whom ether should be given for the amusement of the crowd present on these occasions. My own mother was present at a number of these entertainments in Clarke County, one of which was at the old Weir place four miles from Athens, on the Monroe road. At this time ether was given to a negro boy, and when full anesthesia was established, the young men who gave the ether became very much frightened, thinking they had killed the negro. In their fright they sent to Athens for a physician, but when he arrived the negro had come to life as they thought, and so expressed it.

Now as to the statue spoken of by Drs. Cutter and Sharp, I have this to say, which I think will explain the matter fully. A few years after the death of Dr. Crawford W. Long, portraits were made of two of Georgia's most distinguished citizens (two portraits of each one); one to be placed in the State Capitol at Atlanta, Ga., the other in the rotunda of the Capitol in Washington, D. C. The name of Dr. Crawford W. Long was presented as one of the number, being the discoverer of ether as an anesthetic in 1842. This claim has been fully established by abundant proof, and some authors give the honor to Dr. Long. In the "American Text-book of Surgery," by Keen and White, Dr. Long is named as the discoverer, and one or two English authors give the credit to Long. In the East the credit has been given to Dr. Morton, who first used his anesthetic in 1844, and to whom a monument has been erected, and a public demonstration held in his honor as the discoverer. Dr. Morton deserves all this as one of the discoverers, but Long having antedated Morton two years, he should at least share this honor, notwithstanding the fact that Morton did make known first his discovery to the world. The medical profession of the world should take up this subject and ask for a monument fund, to be raised by voluntary subscriptions by the physicians of every nation.

The statue to Sims, at the unveiling of which I had the honor of being present, is an honor worthily bestowed. The noble profession of the healing art deserves much praise for this work, and I hope the good work will go on. The

names of McDowell, Long, Gross, Morton and Sims, as well as others, should be placed on statues, that in this way their names and achievements may be perpetuated in the minds of future generations. I will head the subscription list from Athens (and no doubt every physician in Athens and vicinity will follow) in raising a fund to erect a statue to the memory of Long. Respectfully, ISHAM H. GOSS, M.D.

Report of a Case of Extensive Gunshot Wound.

READING, PA., Nov. 1, 1894.

To the Editor:—On Aug. 2, 1894, I was summoned in great haste to see Mr. G. B., who met with a dangerous accident half an hour previous to my arrival at his residence, by a discharge of a full shell, containing No. 8 shot, from a breech-loading shotgun, into his left side. Upon examination, after anesthetization by the assistant physician, I found the whole contents of the shell, containing about two hundred and fifty shot, had entered three and three-fourth inches to the left of mid-sternum between the seventh and eighth ribs, fracturing the ninth, eighth and part of the seventh ribs to minute pieces, tearing and lacerating the pleura, peritoneum and diaphragm; lung and liver protruding, and impregnated with numerous shot.

At first sight the case was thought and expected to be entirely hopeless. However, I was determined to do all that could be done, so I excised a great deal of lacerated marginal tissue. I extracted all the pieces of bone obtainable, with numerous shots, and shreds of clothing from lower left lobe of lung and liver; washed out the peritoneal and pleural cavities with a warm bichlorid of mercury solution, 1 to 2500, but could hardly control capillary oozing until, as a last resort, I applied hydrozone half diluted with water, which admirably controlled all capillary oozing, and at the same time acted as a strong disinfectant.

After a thorough cleaning and removal of lacerated tissue, I brought the edges together and coaptated with silk sutures, after inserting two drainage tubes; one under the lower lobe of the left lung and the other under the liver from which I ascertained there was absolute drainage. The external dressing was composed of iodoform gauze. I prescribed internally brandy, belladonna and quinin and a bland but nutritious diet.

On the third day, I found my patient restless and coughing, with hematemesis and fever. Upon this I removed the dressing and washed out the abdominal and thoracic cavities with hydrozone in solution through the herein mentioned drainage tubes, and reapplied another antiseptic dressing, from which time the case made a remarkable forward progress until about the fifteenth day, when again the patient began to show some internal disturbance that on the eighteenth day proved to be an abscess on a large scale in left lower lobe of lung; this ruptured spontaneously three days later, leading to profuse purulent expectoration (undoubtedly a result of remaining shots and small fragments of bone) breaking down the patient's vitality very much for a time which, however, was soon repaired with quinin and iron, and now the patient is absolutely well.

I merely report this remarkably unusual case to show what can be and often is done to apparently hopeless cases.

Fraternally,

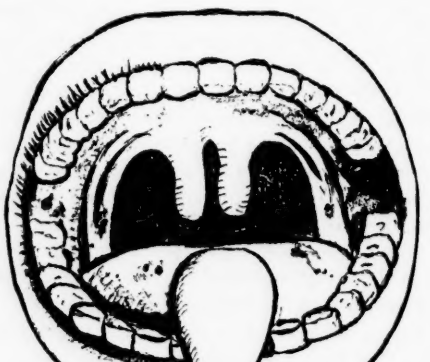
F. H. BROBST, M.D.

Report of a Case of Bifid, or Double Uvula.

KANSAS CITY, MO., Dec. 3, 1894.

To the Editor:—The patient whom I present is 23 years old, and is a mechanic by occupation. He was born in Ireland, came to the United States three years ago, all of which time has been spent in Philadelphia, Pa. About four weeks ago he came to Kansas City to enter Park College, the great industrial school at Parkville, Mo., about ten miles from this city. His family history is good, and is of no importance as far as his own case is concerned. He has always been well. None of his relatives have ever had cleft palates, or any trouble with their throats. Several weeks ago he was referred to me by my friend, Dr. Jessie Woodside, of Parkville. He complains of some difficulty of deglutition and articulation. The voice is rather fine, for a man. On attempting to sing he notices a little accumulation in his throat; this is caused by the saliva adhering to the bifid uvulæ and sticking them together.

He is a good patient to examine, and has such perfect control of his throat, and opens the mouth so wide, that every one can have a perfect view of this beautiful specimen of double uvula. On looking in his throat, you see two distinct uvulæ, side by side, separated all the way to the arch. As you see, there is not the slightest tendency to cleft palate in his case; in other words, his hard palate is perfectly natural. If you will look in his mouth you will see that each uvula is about the normal size. I am under obligations to my friend, Dr. J. C. Steward, who has kindly drawn the perfect sketch of my case which accompanies this article.



The patient insists on having one uvula removed, and I have promised to comply with his wish, thereby hoping to relieve the small amount of difficulty he has in deglutition and articulation. This patient was exhibited to the Kansas City Academy of Medicine Oct. 8, 1894.

HAL FOSTER, A.B., M.D.

"Great Swelling Words."

CHICAGO, Dec. 3, 1894.

To the Editor:—The man who knows neither Greek or Latin, and at the same time lacks training in English, seems to have a mania for padding out his writings with useless but sonorous phrases of classical derivation. He appears to think that by inflating his language in this way he will make his thoughts more pompous and impressive than if he sets them forth in the crystalline gems of pure English words.

Two of the stilted phrases which have recently gotten into vogue are "etiologic factor" and "etiologic entity," and they have been rattled about our ears from so many quarters that nobody knows the first sinner who introduced them.

The Greek word, *αιτια*, means a cause. *Αιτιολογια*,

from which is derived etiology, is compounded of *αιτια* a cause and *λογος*, which taken in composition signifies a study or science. The whole means the study or science of causes. *Αιτιολογικος*, from which comes etiologic, means a person skilled in the study of causes, and may mean any person or thing pertaining to the science of causation. *Factor* is a Latin word lugged in to mix with the Greek, and signifies a person doing or producing anything. It has also a mathematical use. When two quantities are multiplied together and bring out a product, they are called factors, that is producers. Putting it all together, an "etiologic factor" should be some person or thing producing some other person or thing skilled in, or related to the science of causes; or in other words a causative-science-maker; or a maker of something or of somebody pertaining to the science of causes.

In the name of all the gods of Greece and Rome, what idea are these men trying to express? If they simply mean *cause*, why don't they say cause, and be done with it?

As to "etiologic entity," I believe the phrase originated in England and its elucidation may be safely left to the learning and wisdom of our mother country.

Can we not, in some way, induce medical men to reduce their technical terms and classical derivatives to the smallest possible amount and to use the simplest and purest English which will express their meaning? This is the rule among all the best scholars and writers, and only by diligently observing it can medical literature be elevated to its proper dignity.

EDMUND ANDREWS, M.D.

Testimonial to Sir Joseph Lister.

To the Editor:—Sir Joseph Lister having recently retired from active hospital and teaching work, the occasion has been thought appropriate for presenting him with a testimonial of the esteem in which he is held by his former colleagues and pupils, and committees have, therefore, been formed in Glasgow, Edinburgh and London for the purpose of raising the necessary funds.

It is proposed that the testimonial shall take the form of a portrait. Subscriptions have been limited to two guineas, and it is hoped that sufficient funds will be collected to permit of some memento of the occasion being presented to each subscriber of that amount.

As there are probably many surgeons in the United States who may wish to join in the movement, but whose names and exact address it has been difficult to ascertain, I should be glad if you would permit me to state that subscriptions may be sent to me at 29 Weymouth Street, Portland Place, London W. England, or to one or other of the following gentlemen who have kindly consented to act as Treasurers, viz: Dr. James Finlayson, 4 Woodside Place, Glasgow, Scotland; Professor Chiene, 26 Charlotte Square, Edinburgh, Scotland; Prof. William Rose, 17 Harley Street, London, W. England; Dr. Malloch, 124 James Street, South, Hamilton, Ont., or J. Stewart, M.B. 37 South Street, Halifax, Nova Scotia.

I have the honor to remain sir,

Yours faithfully,

J. FREDERICK W. SILK, Honorary Secretary.

P. S. Two guineas are about $10.23.

Tubercular Abscess of Spine—Incision and Irrigation—Drainage with Iodoform Gauze—Recovery.

MEYERSDALE, PA., Nov. 2, 1894.

To the Editor:—A. M., age 26 years; German-American, applied to me in March, 1894, for relief of rheumatism of the spine and lower extremities. He had been suffering for some years, and at this time was unable to perform any manual labor. Examination showed carious spine with large lumbar abscess.

March 24. A free lumbar incision was made and the abscess cavity evacuated. The cavity was gently curetted and irrigated with saturated solution of boric acid. It was then injected with a 10 per cent. emulsion of iodoform in sterilized olive oil and packed with iodoform gauze, applying externally the usual antiseptic dressing. The dressing was repeated every third day until July, when the healing was found to be complete. Every effort was made to have and maintain asepsis throughout the entire course of treatment. Some tonics were given to improve the general health which was much depreciated. No anesthetic was used; the patient declining to take any. Since the operation he has gained some twenty pounds in weight and seems entirely well, having been at his work (coal mining) for several months and experiences no inconvenience.

A. C. HARRISON, M.D.

Souvenir of the Mississippi Valley Medical Association.

A CARD FROM MRS. HAY.

HOT SPRINGS, ARK., Nov. 30, 1894.

To the Editor:—On November 23, the wheels and flying sparks took from me the most enthusiastic and charming assembly of people it has ever been my good fortune to know, and after many miles lay between us I received an exquisite token, a circular pin, of richest gold, with a diamond in the center; its rays showed me plainly the brilliancy of the givers. I do not thank them "*four or five times*," but four or five million times.

Yours appreciatively,

LOTANANNA F. HAY.

The Term Scirrhus.

CHICAGO, ILL., Nov. 29, 1894.

To the Editor:—To settle a dispute, will you kindly inform me of the ori gin of the term "scirrhus?"

MEDICAL STUDENT.

ANSWER.—The term *σκιῤῥος*, from *σκιῤῥος*, "hard," was first used by Galen to *all* indurations, but gradually became limited to one form of carcinoma.

ASSOCIATION NEWS.

The Treasurer's Notice.

Many and generous have been the responses to the Treasurer's notification of arrears, but there are many, very many, who forgot to respond. Another notice will, therefore, be mailed this week. The Treasurer would be pleased to present a report to the ASSOCIATION at Baltimore next May, to the effect that every member had paid his annual subscription for the current year. The purchase of the new office plant makes it imperatively necessary that every member who has not already done so, should pay his subscription promptly.

The Baltimore Meeting.—Active preparations for the next annual meeting are being carried forward in Baltimore. Dr. Julian J. Chisolm has been temporarily compelled to rest from his labors on account of illness, and has delegated Dr. Wm. Osler, of Johns Hopkins as acting Chairman. Dr. George H. Rohé is secretary of the committee, and the members may rest assured that the committee's work will be well done. All the signs point to the next meeting as one likely to be the largest ever held in the history of the ASSOCIATION. It is expected that two special trains will be organized west of the Alleghenies.

SOCIETY NEWS.

Trinity Medical Society.—A regular meeting of the Trinity Medical Society of Toronto, Ont., was held November 16.

The New York Society, for the Relief of Widows and Orphans of Medical Men, held its annual meeting November 21. The following officers were elected for the ensuing year: President, Ellsworth Eliot; Vice-Presidents, David Webster, J. H. Emerson, and Charles H. Feale; Treasurer, Henry Tuck. The fund of this Society has been increased nearly $60,000 during the year.

NECROLOGY.

GEORGE LEONARD BAGLEY, M.D., aged 44 years, died in Des Moines, Iowa, of septicemia caused by a pin prick upon the middle finger of the left hand. He was a member of the Polk County, Capital District, and Iowa State Medical Societies. His death took place in twelve days after the injury.

ALEXANDER F. CARROLL, M.D., of Brooklyn, died November 17, aged 28 years, from anemic coma due to chronic nephritis. He was born in Brooklyn, of Irish parentage, the son of the late Colonel Carroll, formerly County Register and Police Commissioner. He was son-in-law of ex-Register McLaughlin, and was for a time an attache of the Health Department. He was one of the County Hospital staff and a member of the Kings County Medical Society, of the staff of the Columbian Dispensary and of the Conception Nursery. His medical degree was given at the Long Island Medical College in 1888.

H. X. HIXSON, M.D., of Oshkosh, November 23.——C. F. Strecker, M.D., of East St. Louis, who was seriously injured by the overturning of his carriage, died November 26, aged 43.——C. S. Ellis, M.D., of Wabash, Ind.——Charles L. Jones, M.D., of Chicago, November 23.——John B. White, M.D., of Saginaw, Mich., November 21.

PUBLIC HEALTH.

A New Serum.—An Italian physician, Dr. Risso, of Genoa announces that he has discovered a new anti-diphtheritic serum which he claims is much more efficacious than Behring's, whose pupil he was. The successful results of its use are reported by the French journals to be confirmed by the highest Italian authorities.

Cholera in Armenia.—Letters recently received by the American Board of Foreign Missions from its correspondents in Armenia near the scene of the recent atrocities by the Kurds, report that a virulent type of Asiatic cholera has broken out at Moosh, a town in the vicinity of the wholesale slaughter. From twenty-five to thirty-five deaths a day were occurring, death ensuing from five to ten hours after the appearance of the first symptoms and only about 10 per cent. of those attacked recovering. The virulence of the disease is attributed to the effluvia from the bodies of the slain, numbering in the neighborhood of ten thousand.

Conservation of Food by Antiseptics.—M. Nocard, having been commissioned by the Prefect of Police of Paris to investigate the conservation of meats and fish by the use of boric acid, borax, bisulphite of soda, etc., reports that the use of these agents should be proscribed on two grounds—first, their use allows meats to be preserved that have already undergone alterations, possibly not rendering them toxic but modifying their organic elements so as to deprive them of part of their nutritive value; second, the direct action of the conserving agent may modify the nutritive value of the meat more or less profoundly by causing the formation of organic compounds which do not exist in the fresh state. Furthermore, now that sulphuric acid is made from arsenical pyrites it is not impossible to have the sulphites retain traces of arsenic. For these reasons M. Nocard thinks that borax, boric acid, bisulphite of soda or of potash should not be used in the conservation of alimentary materials of animal origin.

Smallpox.—There is a gratifying paucity of smallpox intelligence. No new centers of importance have been reported since the date of the last issue of the JOURNAL. There were twenty-one new cases and twelve deaths in Milwaukee during the week ended December 3; total cases in the city, ninety; in hospital, thirty-eight, in homes 52. Dr. Wingate, Secretary Wisconsin State Board of Health, says: "Nearly all new cases occur in one section of the city—the south side. Disease not known to exist at present outside of Raymond and Rochester, Racine County, one each, and the city of Milwaukee." In Chicago there were forty-eight deaths from smallpox in the month of November, as against forty in October. On the 3d inst., there were sixty-seven cases remaining in hospital—none in homes. Except the cases at Sandwich, previously reported, and two cases in Aurora, contracted in Sandwich, it is not known that the disease exists elsewhere in Illinois. There is a slight increase in the number of cases in New York, and there have been one or two sensational cases in that city and elsewhere; a member of an English variety company, playing in Harlem, was found to be suffering with the disease and created considerable alarm among the other members of the company on the 1st inst.; a Thanksgiving visitor from New York developed a case of the disease at the house of his host in Paterson, N. J.; another case contracted in New York was taken to the City Hospital in Cincinnati on the 26th—the first it is said, received at that institution in three years; a woman, resident in Dubuque, Iowa, for two months, developed an attack of smallpox on the 24th, and its origin has thus far baffled all investigation.

Diffusion of Diphtheria.—There has been no abatement, but the contrary, of the prevalence of diphtheria during the past week. Estimated on the basis of reports received during September the disease has increased about 50 per cent. during the last sixty days. Public schools continue closed in many localities and isolation hospitals are overcrowded. In Detroit the public and parochial schools, which were closed on November 24 for one week, remain still closed and it has been proposed to convert the new smallpox hospital, just completed, into a hospital for diphtheria; the disease is also reported epidemic at Tyrone and other points in Michigan. In Chicago, while the disease has seriously increased, it has not been found necessary to close the schools; reports of its prevalence among the pupils of one school created considerable alarm and the school was taken charge of by the Health Department, which instituted a domiciliary inspection of the families of all pupils and promptly allayed the excitement by revealing the real extent of the disease. The incident has been utilized for a more thorough notification of cases and the exclusion of scholars from infected families and residences. Elsewhere in Illinois the disease is especially prevalent in the central portion of the State, and schools have been closed in consequence at Earlville, Farina, Lilly, Pontoosuc, Five Points, Brocton and a number of other places. It is also epidemic at several localities in Nebraska, Minnesota, Wisconsin, Indiana, Missouri, Kentucky and Ohio, with the usual results; public funerals of diphtheria victims are rigidly prohibited in Fort Wayne and other precautions against spread are enforced, and schools have been closed in St. Paul and Kansas City. Of the Eastern States the

most numerous reports come from Massachusetts, New York, New Jersey and Pennsylvania. During November there were upward of 100 cases reported at Yonkers, with a mortality of about 40 per cent.; all the public schools, seven in number, were closed on the 25th for an indefinite period, although it was hoped that the disease would be "stamped out" shortly after Thanksgiving. In New York City, in Brooklyn and elsewhere on Long Island the disease is increasing, as well as at Buffalo and points in the interior. The Evelyn Female College, three-quarters of a mile from Princeton College campus, was closed on the 29th ult., and the students sent home on account of a fatal outbreak of diphtheria in the institution; one of two students, kept in quarantine, developed the disease and has since died. There is also an increase in the number of cases in Philadelphia, and schools have been closed for indefinite periods at Doyleston, Exeter, South Williamsport and elsewhere in Pennsylvania. Other isolated reports from points in Canada, Oregon, Louisiana, Texas, Tennessee and West Virginia, indicate the pandemic extension of the disease.

BOOK NOTICES.

Transactions of the Colorado State Medical Society. Twenty-fourth annual convention, Denver, June, 1894. Pp. 486. Cloth.

This is a handsomely printed, well-edited volume, containing the proceedings, papers and discussions of the last meeting of the Society. Many of them have been printed elsewhere, and they are all of general interest, with the exception, perhaps, of the address of the President, which is devoted to matters concerning Colorado. The Transactions as a whole, reflect worthily the high state of professional culture which Colorado has attained.

The Medical News Visiting List for 1895. Weekly (dated, for 30 patients); Monthly (undated, for 120 patients per month; Perpetual (undated, for 30 patients weekly per year); and Perpetual (undated, for 60 patients weekly per year). The first three styles contain 32 pages of data and 160 pages of blanks. The 60-Patient Perpetual consists of 256 pages of blanks. Each style in one wallet-shaped book, with pocket, pencil and rubber. Seal grain leather, $1.25. Philadelphia: Lea Brothers & Co. 1894.

The Medical News Visiting List for 1895 has been thoroughly revised and brought up to date in every respect. The text portion (thirty-two pages) contains useful data for the physician and surgeon, including an alphabetical Table of Diseases, with the most approved Remedies, and a Table of Doses in both decimal and old systems. It also contains sections on Examination of Urine, Artificial Respiration, Incompatibles, Poisons and Antidotes, Diagnostic Table of Eruptive Fevers, and the Ligation of Arteries. The classified blanks (160 pages) are arranged to hold records of all kinds of professional work, with memoranda and accounts. A thumb letter index is furnished when required. In its several styles the Medical News Visiting List adapts itself to any system of keeping professional accounts.

A Monograph of Diseases of the Breast, Their Pathology and Treatment with Special Reference to Cancer. By W. Roger Williams, F.R.C.S. With 76 figures. Cl., 8vo., pp. 571. Price £1.10. London: John Bale & Sons. 1894.

One naturally places this book with those of Sir Astley Cooper and Velpeau, both written a little more than a half century ago, and yet in certain respects they have had no successors. The anatomy of the breast as presented in the magnificent plates of Cooper, representing prepared specimens, are unrivalled to-day, and the immense clinical material at the disposition of Velpeau makes his work still a storehouse of information on the subject. Where the modern work excels is in the histology and in therapeutic statistics, which are based on modern science. The book under consideration is well written and exhaustive. We may not accept the author's view of the origin of cancer, but we may commend his patient research, and the eminently satisfactory character of the work done. One of the most interesting chapters in the work is one that was unknown to the older works, namely, the geographical distribution and topography. Full credit is given Billings and other American statisticians for their labors in this direction. Taken all together it is an extremely valuable addition to the literature of the subject.

The Principles of Surgery and Surgical Pathology. General Rules Governing Operations and the Application of Dressings. By Dr. Herman Tillmans. Translated from the third German edition by John Rogers, M.D., and Benjamin Tilton, M.D. Edited by Lewis A. Stimson, M.D. With 441 illustrations. Cl., 8vo., pp. 800. New York: D. Appleton & Co. 1894.

As a text-book for students we have nothing but words of praise for this book. It represents the very latest teaching on the principles of surgery and surgical pathology. The fact is now recognized in all medical schools that the surgeon can never be successful, can never take high rank among his fellows unless his practice is built upon the sure foundation of pathology, and in works on surgery, regional or particular surgery grows smaller in bulk. From year to year, yes, from day to day almost, there are changes and alterations made necessary by the advances in medical science, more particularly in bacteriology and chemistry. To keep pace with these changes in surgical pathology we are compelled, although regretfully, to lay aside the favorites, sometimes in the lifetime of the author. Paget and Billroth follow one another in the annual procession to the top shelf in the library; and the text-books of yesterday will soon follow. Our present interest is with those of to-day. The book is divided into three sections. The first, on General Principles Governing Surgical Operations, contains ten chapters; the second, The Methods of Applying Surgical Dressings, contains five chapters; and the third, on Surgical Pathology and Therapy, contains five chapters; these are: I, Inflammation and Injuries, with an appendix on Chronic Mycoses: Tuberculosis, Syphilis, Leprosy, Actinomycosis. II. Injuries and Surgical Diseases of the Soft Parts. III, Injuries and Diseases of Bones. IV, Injuries and Diseases of Joints, with an appendix on Gunshot Injuries. V, Tumors. We can not too highly commend this volume to our surgical readers.

MISCELLANY.

Intra-Uterine Injections by the Ancients.—Dr. Koromilas, a Greek physician, thinks it is evident from their writings that Hippocrates, Oribasius, Paulus Ægineta and Galen knew of the use of intra-uterine injections. Hippocrates divided the female genital organs into three parts: 1, the external organs; 2, the genital canal or vagina; 3, the uterus; and had a separate remedy to inject into each—wine and honey for the external parts, "goose grease" for the vagina, and wine and oil for the uterus. Dr. Koromilas believes that Hippocrates was the first to make intra-uterine injections.

M. Bertillon Outdone.—The various means used by the police in their hunt for criminals appears to be distanced by that employed lately in Germany to capture a fugitive spouse. The wife of a rich manufacturer at Essen abandoned the conjugal roof and it was discovered had taken a train for Pecs, in Hungary; whereupon the husband telegraphed to the chief of police of that town as follows: "Arrest a woman who will be found on the train at Pecs. Description: Weight, 83 kilogrammes—exact." Upon repair-

ing to the train with this "exact description" the chief was somewhat disconcerted at discovering that all the women on the train were rather portly. However, he had them all weighed in the baggage room and only one weighed 83 kilogrammes exactly. This proved to be the fugitive, and the *Journal de Medicine de Paris* adds that this shows the importance of knowing the exact weight of one's wife—especially if she be somewhat "flighty."

Another New Antiseptic.—It is said in recent therapeutic reports that the salicylate of cadmium has a more energetic action than other salts of this metal. It gives good results in the treatment of purulent ophthalmia, in vascular engorgement of the cornea, as an astringent in mucous discharges, against syphilides, etc. Chemically pure salicylate of cadmium is a white salt, occurring in splendid tabular crystals with plane faces and rounded sides. It has a sweetish taste at first, then styptic. It melts above 300 degrees, dissolves in 24 parts of water at 100 degrees, in 68 parts at 23 degrees, and in 90 parts at zero. It is soluble in alcohol and ether, more readily in warm; very soluble in hot glycerin, but is insoluble in chloroform and benzin. The salt has the formula $(C_6H_4OHCOO)_2Cd$, and has 24 parts per 100 of metallic cadmium. It may be prepared either by acting on hydrated oxid or carbonate of cadmium with salicylic acid, or by precipitating salicylate of barium with sulphate of cadmium; the latter method is more complicated and the product is not so pure.

Thyroid Intoxication.—A French physician, Dr. Beclère, writing on myxœdema in the *Gazette Médicale de Paris*, makes use of the above term to express the sum of the symptoms that follow an overdose of thyroid gland. He reports a case that was successfully treated by sheep's thyroids, in the course of which there was an accidental excessive dose, followed by quite an array of symptoms. The patient was a female, 31 years old. The overdose consisted in the ingestion of three ounces of the thyroid gland in eleven days. The English authors have reported such symptoms as tachycardia, variable pulse, insomnia, agitation, pyrexia, polyuria, glycosuria, albuminuria, the sensation of heat and sweating. The present writer adds an increased frequency of respiration, transitory tremblings of the arms, exophthalmia and a staring expression of the eyes. Hysterical symptoms were also observed in this patient, such as aphasia, monoplegia and anesthesia of the right upper extremity, although the woman had not theretofore exhibited any neuropathic symptoms, and Dr. Beclère suggests that an excessive secretion of the thyroid juice may be one of the exciting causes of hysteria. He believed it would be found that thyroidism, when occurring in hysterical subjects, will arouse hysterical seizures in them, just as other intoxications would. Dr. Beclère thinks that the intercurrence of exophthalmic goitre points to a hypersecretion by the thyroid gland and that the juice acted, like other intoxications, as an exciting cause of hysterical outbreaks.

Abandonment of Fort Marcy, N. M.—This post, situated within the city limits of Santa Fé, has been garrisoned since the occupation of the Territory by the United States; but for many years the troops were kept constantly employed in carrying on active operations against hostile Indians so that the garrison was rather in the field than stationed at a military post. The elevation of Fort Marcy was 7,000 feet above the sea level. Foothills rising abruptly in the vicinity of the post lead up to a succession of mountain ranges in the east and northeast, the highest of which, seventeen miles distant, attains a height of nearly 13,000 feet. To the south and west is a plain, twenty miles in extent, broken only by a few small hills and arroyos until the mountains bordering the Rio Grande are encountered. This plain is susceptible of high cultivation if water is supplied by the natural rainfall or by irrigation. The climate is mild and equable on the whole, although when the direct rays of the sun are withdrawn the lowering of the temperature, as in all mountain regions, is abrupt; and in winter cold winds sweeping down from the snow-covered mountains sometimes gives a thermometric fall of 15 or 30 degrees F. in a few hours. Notwithstanding this, the place has been much lauded as a sanitarium for incipient cases of pulmonary consumption. The post participated in the excellent water supply of the city. A reservoir holding 250,000,000 gallons was built three miles above the city on the line of a mountain stream. The water is delivered by iron service pipes under a pressure of 187 pounds per square inch. A government reservation for National park purposes includes the head waters and course of the stream to within a distance of four miles from the reservoir. No settlement is permitted on these grounds; and as the interval between the reservation and the reservoir is a narrow valley, it can easily be watched and protected by the Water Company so as to prevent any contamination of the supply. The barrack buildings were thick-walled one-story adobe houses, with good roofs, ventilated by skylights and ventilating openings near the eaves. The quarters of the officers were commodious and comfortable. Bathing facilities were ample and complete. Waste water from bathrooms and kitchens was conveyed by open ditches to a sandy arroyo where it was absorbed or dissipated. In some instances old wells were used as cesspools for waste water. Earth closets were used in the absence of water carriage for the removal of excreta. The general health of the garrison was good. The only diseases which could be said to be prevalent were bronchial and rheumatic affections.

Necropsy of the Czar.—Following is the official statement relative to the cause of death of Alexander III. of Russia, made by the court physicians, as well as the protocol of the autopsy:

Diagnosis: Chronic interstitial nephritis followed by cardiac and vascular lesions; hemorrhagic infarct of the left lung, followed by pneumonia.

(Signed) PROFESSOR LEYDEN. PROFESSOR ZAKHARIN, PROFESSOR POPOW, DR. HIRSCH, DR. VELIAMONOW, Honorary Court Physicians.

Livadia, Oct. 21 (Nov. 2) 1894.

Autopsy: In the year 1894, the 22d of October (3d of November), we the undersigned, proceeding to embalm the body of the deceased Emperor, Alexander Alexandrovitch, have found the following alterations: Considerable edema of the sub-cutaneous tissues of the legs and reddish spots on the left knee. The left pleural cavity contained 200 cubic centimeters of reddish serous fluid; in the right side there were 50 cubic centimeters of the same fluid. The apex of the right lung showed an old fibrous cicatrix; the right lung is edematous. The upper lobe of the left lung is slightly edematous and there is an hemorrhagic infarct in the lower lobe filled with blood and containing very little air. The infarct was found in the upper border of the lower lobe of the left lung and presented a triangular area on section—one and one-half by one centimeters. The pericardium contained thirty cubic centimeters of reddish serous fluid.

The volume of the heart is considerably increased. The vertical diameter is seventeen centimeters, the horizontal eighteen. The subserous tissue contains a great quantity of fat. The heart was found in a state of slight diastole. The left cavity is enlarged and the wall of the left ventricle thickened (two and five-tenths centimeters). The muscle in this ventricle is pale and flabby and of a yellowish color. In the right ventricle the muscular wall is thinned (six millimeters) and of the same yellowish hue. The valvular apparatus is perfectly healthy.

The abdominal cavity contained about 200 cubic centimeters of serous fluid. The stomach and intestines were filled with a large quantity of gas. The liver is somewhat increased in volume and this organ is very plethoric. The kidneys have the following dimensions: The left is sixteen centimeters long, seven centimeters wide and four thick; the right, fifteen centimeters long, six and five-tenths centimeters wide and four centimeters thick. The capsule of the kidney peels easily and is of normal thickness. The surface of the kidneys is slightly granular and of a deep red color; the hardness is insignificant. The cortex is lessened (from six to seven millimeters) and of a yellowish color—the medulla of a deep red;

in the left kidney was a serous cyst, three millimeters in diameter.

In virtue of the preceding we are of opinion that H. M., Alexander Alexandrovitch, succumbed to a cardiac paralysis, preceded by a degeneration of the hypertrophied cardiac muscle, and to an interstitial nephritis (granular atrophy of the kidneys).

(Signed) Prof. J. F. Klein, D. N. Zernow, Prof. M. A. Popow, Dr. N. Valtonkhow, Dr. N. C. Belooussow.

Livadia, Oct. 22 (3d Nov.) 1894.

Proper Care of the Eyes.—Dubuque physicians have issued the following statement to the public: In view of the fact that the advice of the family physician is frequently sought on the subject of the proper care of the eyes, it seems proper and opportune to call attention to the following points:

1. Glasses for the correction of visual defects are demanded for a variety of reasons, some of which pertain to the ordinary changes in the refractive media incident to advancing age or otherwise, and some of which are due to true disease of the eye which from the nature of the case are far more serious, requiring for their proper treatment the services of one properly equipped in that department.

2. We believe that the one intrusted with the care of so important an organ as the eye should understand not only the mechanical methods of adapting glasses to the common refractive errors, but also the far more important and intricate diseased conditions, for the proper appreciation of which a knowledge of anatomy and physiology and the principles of medicine are absolutely essential.

3. We have, as residents of our city, men who in our opinion are exceptionally well fitted not only to recognize and correct the ordinary refractive errors, but also to diagnose and treat properly diseases of the eye.

We think it due to the public not less than to these gentlemen to bear this testimony.

G. M. Staples,	Asa Horr,
Sam'l H. Guilbert,	J. K. Green,
John E. Bready,	M. E. Connelly,
Jno. L. Lewis,	J. R. Guthrie,
Wm. Bray,	J. S. Bigelow,
C. H. Hamilton,	Allen Staples,
F. W. Wieland,	William Slattery,
F. H. Holland,	N. M. Hill,
J. F. McCarthy,	B. Michel,
George Minges,	F. R. Nitzsche.

Experiments with Mosquitoes in Mississippi.—Mr. Howard Weed, of the Agricultural College, Mississippi, has had some success in the abatement of mosquitoes by the free use of kerosene upon tanks of water and in other positions which he mentions. His observations are published in the last issue of *Insect Life*. He begins by saying that the use of kerosene, for this purpose, has been known for many years in the French quarter of New Orleans. The citizens of that section have found that the addition of kerosene to their water tanks has materially reduced the pest of insects, but much has been written showing that such is the case, and in this age of advancement we can no longer go by hearsay evidence. Everything must be founded upon known facts, and these facts can only be ascertained by experiment. On the college campus are eleven large water tanks, two of which are used for drinking water and the others for irrigation and fire protection. Not far from the limits of the campus are also four pools of standing water, three of which are used for watering stock and the other for irrigation in the horticultural department. These pools, however, are well stocked with fish, and the larvæ of the mosquito are never found there. "Before the water tanks were built, the college campus had been quite free from mosquitoes, but the evil has been constantly upon the increase, reaching its climax early the present season. I have often advised that a small amount of kerosene be placed in each of the water tanks, and the college proctor several times informed me that he 'had a nigger put kerosene in the tanks every week, but it did no good.' The college physician also stated that he had placed some kerosene in a jar of water containing some of the wiggletails, but that the kerosene had not killed them, thus regarding the remedy recommended as ineffective.

"By June 20 of the present year, mosquitoes had become so numerous on the college campus as to make life a burden, and sleeping without a mosquito bar was out of the question. Wishing to demonstrate the effectiveness of the remedy which I had recommended, I took a large glass jar and filled it nearly full with water from one of the tanks, which was fairly alive with the mosquito larvæ. The jar contained several hundred of the larvæ and I took it to the college physician, poured a little kerosene into the jar, and asked him to please watch the effect. This was as expected, for within fifteen minutes all the larvæ were dead." Some of the tanks for fire purposes were in dark attics and relatively free from larvæ. Four tanks had them in large numbers. Mr. Weed treated these with a gallon of kerosene, and ten days later the mosquitoes were nearly all gone from the campus and the collegians were able to dispense with the mosquito nets. Three weeks later some of the tanks were again dosed. Upon all the outdoor tanks a thin film of kerosene has remained since the kerosene was put in. The campus is now nearly free from mosquitoes and has been so since ten days after the kerosene treatment. Hereafter during the summer, kerosene will be put in the outdoor tanks, putting in enough to keep a thin film over the top of the water.

Mr. Weed recommends the use of kerosene to moderate the irritations that afflict a mosquito-burdened locality. "I have also found that kerosene is a good article to use to prevent mosquitoes from annoying one when they are numerous. To use it for this purpose a little is smeared upon the back of the hands and also upon the face. At first thought this would seem to be a disagreeable operation, but a trial of it will prove that it is not disagreeable in the least. It is quite effective in keeping the mosquitoes away and is much better than the Florida method, which I have been told is to remain secreted under a large iron kettle and with a hammer clinch the bills of the mosquitoes as they are thrust through the kettle."

Prerogatives of Boards of Examiners.—Cases are constantly arising, in one part of the United States or another, where some holder of a diploma and a State Board come into conflict. The latest decision of this nature, where there has been an authoritative adjudication of the points at issue, is to be found in Tennessee. The holder of a diploma from a certain college for the practice of dentistry, presented same to the State Board of Dental Examiners, asking them to file and register it, and to issue to him a certificate to practice dentistry in that State. This the Board refused to do. Thereupon he sought, by the legal writ of mandamus, to compel the Board to issue to him the desired certificate or license.

The board answered that it was not a reputable college of dentistry which issued the diploma, giving a sufficient course of instruction; that the board was not compelled by law to recognize its diplomas; and that, in the discharge of its duties for the protection of the public, it could not be controlled and coerced in the exercise of its discretion. It appeared from the record that the board had determined to only recognize as "reputable" such schools of dentistry as belonged to the National Association of Dental College Faculties, whose rules it has adopted, and by whose recommendations it was to a great degree governed. The Tennessee statutes prohibit the practice of dentistry, except by persons holding diplomas from reputable dental colleges, the validity of which diplomas the State Board of Dental Examiners is authorized to decide upon. When no diploma is presented, the Board is to make an examination; and this it offered to do in this case. Much was said here as to the scope and meaning of the word "validity" as applied to a diploma, whether it meant simply its genuineness, or in addition, its force and effect as emanating from a reputable college.

Coming now to the decision, the Supreme Court of Tennessee holds, under date of Sept. 13, 1894 (State v. State Board of Dental Examiners), that it is evident from the purpose and tenor of the Act that it was intended that an applicant, basing his claim upon a diploma from a dental college, and relying upon that, and declining to pass an examination, must have a diploma from a reputable college, and the Board of Examiners provided for must have power and discretion to determine in cases of applicants with diplomas, whether they come within the provisions of the law, and whether the diplomas tendered by them as the basis of their application emanate from a reputable dental college. The

power to determine this could not be lodged in a more appropriate tribunal, composed, it must be presumed, of men learned and trained in their profession, and competent to pass upon, not only the qualifications of applicants, but also the reputation of schools within the State, engaged in dental education. In performing their duties, the Board is exercising a quasi-judicial function; and, so long as it does not act arbitrarily and illegally, its determinations can not be coerced by the courts through writs of mandamus so far as they involve the exercise of this judicial discretion.

In harmony with this, the court further specifically holds that, the board having, by rules which seemed to it to be altogether proper, fixed a standard by which to determine the standing of dental colleges, and, in so doing, having been guided by the opinions and rules of a National Association, composed of eminent dental men, selected in different States with a view to promoting uniformity of decision and advancing of the profession; and having by these rules tested the diploma presented to them, and determined that it did not emanate from a dental college which at the date of its issuance had brought itself up to the standard, although it might have subsequently done so, the board's finding was warranted by law, and conclusive on the facts. The adoption of the rules of the National Association was in no sense a surrender of the board's power or discretion, but, on the contrary, so far as the court could see, an effort to conform to a system recognized over the United States as conducive to the advancement of the dental science, and promoting the best interests of the profession.

Assistant Medical Inspectors.—The fifteen assistant medical inspectors of Philadelphia have presented the following petition to the city council asking for an increase of salary:

To the Select and Common Councils of the city of Philadelphia—*Gentlemen:* We have the honor to submit for your consideration the following petition:

The Assistant Medical Inspectors are doing their work conscientiously and thoroughly. For more than two years they have labored assiduously for the restriction of contagious diseases in all its details.

The population of the city is great, constantly increasing and spread over a wide expanse of territory.

The Assistant Medical Inspectors have no complaints to make of hard work; neither do they desire any remission or diminution of their labors, however arduous they may be; but take much pleasure in the thought that in the performance of their duties many valuable lives are saved to the citizens of this city.

There are several considerations that the Assistant Medical Inspectors desire to submit to the Councils in support of their request for increased compensation.

1. The nature of the work is such that the Assistant Medical Inspectors are required to be continuously on duty, day and night, Sunday and holidays not even excepted.

2. The list of contagious diseases is increasing, notably consumption has lately been added to the list, and doubtless others will be added in the near future.

3. The small opportunities for private practice must necessarily be sacrificed to their public work.

4. The Assistant Medical Inspectors are required, and stand ready at any time to devote their entire time to the public service, when called upon to do so, as in case of epidemics.

5. The work is so widespread that the expense of transportation from one locality to another requires a very considerable daily outlay of money.

6. There is considerable personal danger to themselves and their families, which justly calls for greater compensation than many other employments.

7. The professional training of the Assistant Medical Inspectors, their medical education and large experience make their work that of experts in sanitation, and yet the compensation of $3.29 per day is not so great as that paid in mechanical pursuits.

8. The public duties of the Assistant Medical Inspectors cut down and curtail their private practice, for the reason that the public will not knowingly employ physicians whose principal business is with contagious diseases. Practical experience has demonstrated that it is only a matter of a short time before they cease to be regarded by the public as practicing physicians but simply as officials of the Bureau of Health.

9. It is an unquestioned fact that the work of our department has largely decreased the number of contagious diseases in our city. At the present time, in view of the prevalence of smallpox and diphtheria in our city, we are warranted in saying that were it not for the vigilance of the Assistant Medical Inspectors a serious and widespread epidemic would have occurred.

10. The Committee of Fire and Health, recognizing the justice of our claims and the value of our services to the city of Philadelphia, have unanimously recommended an increase in our salary.

Under these circumstances we respectfully request of your honorable bodies that in our efforts as conservators of the public health we be granted an increase in salary commensurate with the character of our work. Very respectfully your obedient servants,

THE ASSISTANT MEDICAL INSPECTORS.

Hospital Notes.

BOARD OF MANAGERS, M. E. HOSPITAL.—The annual dinner of the Board of Managers of the Methodist Episcopal Hospital of Brooklyn, took place November 22. Dr. James M. Buckley presided. The toasts and those who responded were as follows: "Ecclesiastic Fellowship," the Rev. H. C. Farrar; "Brooklyn Journalism," Murat Halsted; "Hospital Experiences," the Rev. J. S. Breckinridge; "Relation of Medicine to Law," G. G. Reynolds; "The Medical Faculty," W. N. Belcher, M.D.; "The Internes," A. D. Bogart; "The ex-Internes," W. X. Campbell.

WOMEN'S HOSPITAL OF NEW YORK.—The annnal report of the Women's Hospital of New York, shows the total number of patients treated in the in-door department was 302, of which 262 were free patients. The total number receiving treatment in the out-door department was 5,096; consultations held in the out-door department numbers 10,304.

RESPECTFULLY REFERRED TO THE BOARD OF ASSESSORS.—The Youngstown, Ohio, *Indicator* of November 20 says that the Mahoning County Medical Society have petitioned the County Health Commissioner for a supply of "antitaxin."

THE EPISCOPAL HOSPITAL OF PHILADELPHIA.—The Ingersoll Building of this institution was dedicated November 26. The new building contains the ward intended for the reception and first care of surgical cases. The building is located to the right of the main edifice at the corner of Front Street and Lehigh Avenue; is 55x155 feet, and is three stories high, with a basement and sub-basement. It is made fireproof by all the foundations and division walls being of brick and laid in cement. The walls are of hard brick, with Trenton brown stone trimmings, the whole building costing about $90,000. The basement is intended for a surgery dispensary. It connects with the main building by an underground vaulted passage. The diet kitchen for the use of the first floor is in the basement. On the left of the entrance hall on the first floor is the men's ward. On the right of the hall a wide corridor connects with the operating-room. On the second floor is a ward for the treatment of patients suffering from burns, a woman's ward and a diet kitchen. The third floor is fitted up in a similar manner with wards for patients, sleeping-rooms for nurses, etc. The new building is complete in every respect for the purposes intended, and will be a great aid to the proper care of accident cases at that institution.

CLEVELAND STATE HOSPITAL.—The annual report of the Superintendent of the Cleveland State Hospital shows the total number of patients under treatment during the year 1,199. At the beginning of the year there were 863 patients in the hospital, 436 males and 427 females, and 176 of the former sex and 160 of the latter were admitted. The average number under treatment was 929; discharged during the year, 263, 131 being males and 132 females. The recoveries were 122. Forty were discharged improved, eighteen unimproved, and eighty-two died. The percentage of recoveries of the number admitted was 36.3.

Louisville Notes.

BOARD OF PUBLIC SAFETY.—The first report of this Board, which has been acting under the new city charter for the past year, has been submitted. In it are included a few points of medical interest. It states that the much needed

City Hospital Ambulance Corps will soon be organized; that the daily average of inmates at the hospital is 130 and the actual cost per diem to the city, for officers, employes and patients is 44.1-6 cents. The hospital can now accommodate 500 patients. The training school for nurses is in a flourishing condition under the charge of Miss Sweeney. The Board has been solicited by physicians practicing at the hospital to establish the office of Registrar. As it is, at present, very incomplete histories are kept, and much valuable data is lost or never recorded. The cost would be about $500 per year, and the appointment is recommended. A morgue has been established at the Medical Department of the University of Louisville without cost to the city, where bodies are kept for identification.

Louisville Medical College.—Officers for the class of '95 numbering forty-two, who will graduate from this College in March next, were elected as follows: President, C. A. Gray, of Texas; Vice-President, J. W. Haydon, of Louisiana; Secretary, A. A. Watts, of Virginia; Treasurer, M. D. Baker, of Texas; Valedictorian, M. C. Boydston, of Missouri; Salutatorian, E. Victor Wedding, of Kansas City.

Liquor License.—The Court of Appeals has decided that all druggists handling liquors are retail liquor dealers, and are subject to the payment of a State license. This is a reversal of the decision of the lower courts, in the test case of Mr. J. W. Fowler. Thus far only five druggists have paid the license, which amounts to $275 per annum. Most of the druggists say it will not pay them to handle liquor, for in the average drug store the aggregate sales of the stuff reach a sum little if any in excess of the license tax. The druggists are laying plans to get a repeal of the recent enactment.

Judge Lewis of the Supreme Bench will file a separate opinion, which will amount practically to a dissent, because it will take the ground that the Legislature has not the power to impose any condition, except to require that the sale should be accompanied with a prescription. Messrs. Knott and Edelin have had the court to grant thirty days for filing a petition for a re-hearing. This will throw the consideration of the petition with the new court of seven judges. Of these seven, two are against the druggists, one for them and four doubtful.

Diphtheria Antitoxin.—The first supply of the diphtheria antitoxin has arrived in Louisville. Dr. F. W. Koehler has just received a small consignment which he ordered in Berlin five months ago. This supply is from the Farbenwerke of Meester, Lucius and Breuning, who are Professor Behring's authorized manufacturers of the remedy. So long as the supply lasts, Dr. Koehler will share it with any physician of the city.

C. O. and S. W. R. R. Hospital.—By order of Judge Barr, of the Federal Court, a hospital for disabled and sick employes will be built at Paducah, Ky., by the C. & O. and S. W. Railroad. The railroad company made a regular monthly levy on their employes for building this hospital, and before the road went into the hands of the receivers, over $20 000 had been founded for hospital purposes. L. J. McGuire and several others of the road's employes petitioned the Federal Court to have the hospital built out of the net earnings. Yesterday Josiah A. Horsey and Edward H. Pardee, trustees of the first mortgage bonds, filed an answer to the employes' petition favoring a hospital. Not more than $22,000 of the surplus earnings, together with the regular hospital fund, shall be used for the building. The railroad company must get a deed to from three to four acres of ground as a site for the building.

Pure Food Exposition.—Louisville will have a pure food exposition from January 7 to January 26, to which time it has been postponed. Much interest is being taken in it at home and abroad.

Health Officer's Report.—The report for the week ending November 30 shows a total of sixty-two deaths. Pneumonia leads the list with eleven deaths, consumption nine, typhoid fever three and diphtheria four. For the month the report shows 235 deaths, and despite the added territory caused by the annexation of several suburbs, the deaths for the corresponding month last year numbered 256.

Washington Notes.

Medical Society of the District.—At the meeting of the Society on the 21st inst., Dr. Compton read a paper entitled "Lung Exercise for Development." The paper brought out one of the most interesting discussions ever held in the history of the Society, and the essayist was complimented for his instructive and interesting paper. Dr. J. Ford Thompson gave the histories of two cases of hysterectomy—one of tubal pregnancy and some cases of uterine fibroids. Dr. J. T. Johnson, presented the specimens and gave the history of two cases of uterine fibroids. The President, Dr. S. C. Busey, announced that Dr. Joseph Price would address the Society on the 28th inst., and that his subject would be, "The General Practitioner's Knowledge and Responsibility in Gynecologic Cases."

Smallpox.—No new cases of smallpox have occurred during the past week. Two cases, however, were reported at Pomonkey, Md., which were traced to the original source, the Coston family in Washington.

Marine-Hospital Service in the District.—Immunization of horse for serumtherapy of diphtheria—additional report.

Washington, D. C., Nov. 21, 1894.

Sir:—I have the honor to report that the immunization of the horse for the preparation of the antitoxin of diphtheria has been continued since my last report by the injection of two cubic centimeters of the toxin. There was little local or constitutional reaction.

Very respectfully, H. D. Geddings,
Passed Assistant Surgeon, M. H. S.

To the Surgeon-General, M. H. S.

The Woman's Clinic.—At the adjourned meeting of the Clinic held on the 17th inst., the following board of directors was elected for the ensuing year: Mrs. Mary F. Case, Dr. Ida J. Heiberger, Miss Minnie E. Heiberger, Drs. J. H. Bryan, S. M. Burnett, H. L. E. Johnson, Mary Parsons, D. W. Prentiss, Jessie Kappeler, Julia Smith, Abbie Tyler; Mrs. Cora Dufour, Mrs. Marian Anderson, Mrs. E. B. Sheldon, Mrs. Emily Sherwood, Mrs. Dan B. Lloyd; Drs. Clara Bliss Finley, H. C. Yarrow, Robert Reyburn, D. S. Lamb, Mabel Cornish; Miss Satie Hyde, Mrs. W. E. Burleigh, and Dr. Sophie A. Nordhoff. Mrs. Anderson was elected First Vice-President; Dr. Lamb, Second Vice-President; Mrs. Case, Secretary, and Miss Heiberger, Treasurer. The clinical staff consists of Drs. Heiberger, Smith, Tyler, Kappeler, Cornish, Nordhoff, and Clarence R. Dufour.

The Hospital for Contagious Diseases.—The Commissioners of the District have at last decided upon the location for the contagious disease hospital. They have purchased ground at Mount Pleasant near Seventh Street extended, and expect to begin the building in a very short time. There are the usual objections by the residents of that locality. It is admitted by every one that the hospital should exist but no one appears to wish it near his or her property or residence. It is more than possible that the courts may be called upon to decide the power of the Commissioners to locate it at the place decided upon. The smallpox hospital will remain where it is, and the proposed one is for scarlet fever, diphtheria and measles only.

Annual Report of the Health Officer.—The report of the Health Officer of the District for the year ended June 30, 1894, has been published and is being distributed to the physicians and scientists as a public document. The report for the week ending November 24 shows only twelve deaths.

District Medical Society.—At the meeting of the medical Society held on the 28th inst., Dr. S. S. Adams reported a very interesting case of tubercular meningitis in a baby. Dr. G. N. Acker reported a case of general tuberculosis with ulcerative endocarditis. Dr. Joseph Price, of Philadelphia, addressed the Society, the subject being "How to do Abdominal Operations without Fuss, Feathers and Foolishness." He disapproved of the use of antiseptics in surgery and gave a new and novel treatment. The paper was exhaustively discussed. Dr. Price failed to bring the paper previously announced and so he read this as a substitute. Dr. Fry presented the specimens from a case of ectopic gestation, sarcoma of the uterus, and sloughing of the upper third of the uterus. These had previously been presented to the Gynecological Society.

Smallpox Hospital.—Two cases of smallpox cured at the hospital were discharged on the 29th inst., and two more are to be set at liberty during the present week. The Health Officer expects to have the present quarters enlarged at the

earliest opportunity. A site for the quarantine station has been rented for six months. It is located at Eighteenth and D Streets, S. E. The Health Officer has recommended the temporary appointment of Drs. Thomas Kelley, and J. R. De Vereux to serve as physicians to the poor during the absence of Drs. Thompson and Shaw.

A PHYSICIAN'S HORSE STOLEN.—A colored boy called at the house of Dr. Hazen, 511 East Capitol Street, Tuesday, during the absence of the Doctor, and said that he had called to take the latter's horse to the blacksmith shop. The horse was given to the fellow, who asked for a bridle, harnessed up the animal and rode it away. The police were notified yesterday, but could find no trace of boy or horse.

THE ANNUAL REPORT OF THE PHYSICIAN TO THE DISTRICT JAIL.—Dr. D. K. Shute, the physician of the jail, in his annual report, says that there were three deaths at the jail during the past year, one from consumption, one from pneumonia and one the result of an accident. During the months of September and October a large number of the prisoners and several of the officers of the jail suffered severely with malarial fever, due, in the physician's opinion, to the close proximity of the jail to the marshes of the Eastern branch. The cases yielded readily to treatment. Apart from those prisoners, whose lives had been of such a character as to induce disease in any locality, and apart from the malarial cases, Dr. Shute says the health of the prisoners has been remarkably good.

"On several occasions," Dr. Shute says; "the bread, meat and fish furnished the jail were found to be of such inferior quality that it was necessary to condemn them; since then the food furnished the prisoners by the contractors has been entirely satisfactory. I desire specially to mention the fact that the close proximity of the contagious disease hospital to the jail is a constant source of danger to the large number of inmates, officers and prisoners, who are daily in the jail. During the present prevalence of smallpox in the city and at the contagious disease hospital we have taken every precaution to prevent the disease getting among the officers or prisoners of the jail. All the officers and prisoners have been vaccinated and all prisoners coming to the jail every day are immediately vaccinated. There is no case of smallpox in the jail nor has any case occurred here during the past year. As a further precaution against the possible entrance of smallpox into the jail during the presence of the disease in the city, the friends of the prisoners are prohibited from visiting them."

Warden Leonard says he indorses the views of the jail physician in regard to the contagious hospital, which he believes, in case of an epidemic, to be too close to the jail.

HOW TO CARVE A TURKEY—FOR THE EMERGENCY HOSPITAL.—At the Pure Food Exposition lecture on the 29th inst., Mr. Murray, the proprietor of the café at the House of Representatives and a member of the National Capital Press Club explained the mysteries of carving a turkey, and the proceeds were for the benefit of the Emergency Hospital. Rev. D. J. Stafford, S.J., will deliver on December 20, a lecture on "Hamlet" for the benefit of the Emergency Hospital.

BALL FOR THE BENEFIT OF THE HOME FOR INCURABLES.—The charity ball given at Linthicum Hall last night by the Board of Lady Managers of the Home for Incurables was a brilliant success socially and financially. The ball was attended by the leading society people of Georgetown and other sections of the city, and a good sum realized for the treasury of the Home.

COLORED SCIENCE.—At a meeting of colored doctors, presided over by Dr. Watts, at Freedman's Hospital last week, the preliminary steps were taken toward forming a District Medical Association among the colored physicians. There were about thirty-five doctors present, and the following committee of five was appointed to prepare plans for a permanent organization, and submit them at the next meeting December 5: Drs. F. J. Shadd, R. W. Brown, A. W. Tancil, H. W. Furniss and G. W. Cabiniss.

FATAL FOOTBALL.—George D. Bahen, who played right halfback for the Georgetown University football eleven in the Thanksgiving Day game with the Columbias, and was so severely injured in one of the scrimmages that he had to be carried from the field, has only a slight chance of recovery. Drs. Kleinschmidt, Kerr and Magruder made a careful examination of his injury and gave little hope to the sufferer and his friends. His spine is fractured and will require a laminectomy. The University will prepare a note requesting a change in the rules of this murderous game.

BURNED FATALLY IN A PRIVATE WARD AT GARFIELD HOSPITAL.—The aged mother of Dr. H. C. Russell, who was a private patient in the Garfield Hospital accidentally ignited her night dress from a gas jet in her room and died on the following day, November 29. The coroner declined to hold an inquest as the death was undoubtedly accidental.

THE PUBLIC SERVICE.

Marine-Hospital Changes.—Official list of changes of stations and duties of medical officers of the U. S. Marine-Hospital Service, for the fifteen days ended Nov. 30, 1894.

Surgeon R. D. MURRAY, to proceed to Key West Quarantine and assume command of station, Nov. 17, 1894.

Surgeon H. A. CARTER, to proceed to Norfolk, Va., and assume command of Service, Nov. 17, 1894. Granted leave of absence for fifteen days, Nov. 20, 1894.

P. A. Surgeon EUGENE WASDIN, to proceed to Pittsburg, Pa., and assume command of Service, Nov. 21, 1894.

P. A. Surgeon L. L. WILLIAMS, granted leave of absence for sixteen days, Nov. 26, 1894.

P. A. Surgeon G. M. MAGRUDER, to proceed to Galveston, Texas, and assume command of Service, Nov. 21, 1894.

P. A. Surgeon J J. KINYOUN, granted leave of absence for six days, Nov. 21, 1894.

P. A. Surgeon T. B. PERRY, granted leave of absence for thirty days, Nov. 20, 1894.

P. A. Surgeon H. T. GOODWIN, to proceed to Cincinnati, Ohio, to inspect unserviceable property, Nov. 20, 1894.

P. A. Surgeon G. M. GUITERAS, granted leave of absence for ten days, Nov 28, 1894.

P. A. Surgeon H. D. GEDDINGS, to proceed to South Atlantic Quarantine and assume command of station, Nov. 21, 1894.

P. A. Surgeon J. C. PERRY, granted leave of absence for thirty days, Nov. 24, 1894.

P. A. Surgeon G. B. YOUNG, granted leave of absence for ten days, Nov. 20, 1894.

Asst. Surgeon EDGAR STRAYER, to proceed to Boston, Mass., for duty Nov. 22, 1894.

Asst. Surgeon RUPERT BLUE, to proceed to Charleston, S. C., for temporary duty, Nov. 21, 1894.

Asst. Surgeon EMIL PROCHAZKA, leave of absence granted Nov. 14, 1894, canceled Nov. 26, 1894.

Asst. Surgeon A. R. THOMAS, to rejoin station (St. Louis, Mo.), Nov. 16, 1894.

Asst. Surgeon H. S. CUMMING, to proceed to Norfolk, Va., for temporary duty, Nov. 22, 1894. Granted leave of absence for eighteen days, Nov. 27, 1894.

LETTERS RECEIVED.

Antikamna Chemical Co., St. Louis, Mo.; Allport, F., Minneapolis, Minn.; Anderson, B. C., Galesburg, Ill.

Bissell, J. Ely, Lincoln, Neb.; Brown, Warren, Tacoma, Wash.; Brooks, Geo., Riestertown, Md.; Barker, L., New York, N. Y.; Berger, S. C., Philadelphia, Pa.; Blodgett, F. J., New York, N. Y.; Benton, J. R., Kent Island P. O., Md.; Blumer, G. Alden, Utica, N. Y.; Billroth-Silverton, Dr., St. Louis, Mo.; Brazil, J. T., New York City; Busey, Samuel C., Washington, D. C.

Cain, J. S., Nashville, Tenn.; Cash Medical Advertising Co., St. Louis, Mo.; Curtis, H. H., (2) New York City; Coe, Anton, Washington, D. C.; Canadian Medical Review, Toronto, Canada; Cabaniss, G. W., Washington, D. C.; Cain, J. S., Sewanee, Tenn.; Canfield, W. B., Baltimore, Md.; Cruze, A. L., Vincennes, Iowa; Cumberworth, Bennett's Corners, Ohio.

Dios Chemical Co., St. Louis Mo.; Dahms, Langworthy & Poppenhusen, Chicago, Ill.; Dean, G. S., San Francisco, Cal.; Day, F. Harvey, Tallyville, Del.; Dent, W. B. Oakley, Md.; Drevet Manufacturing Co., New York, N. Y.; Downes, J. M., Hazlettville, Del.; Dennison, John M., Blatchford, Ohio; DeCourcy, J. Osborne, St. Libory, Ill.; Donaldson, J. B., Cannonsburgh, Pa.

Fowler, Jr., Nath'l C., Yonkers-on-Hudson, N. Y.; Farrar, J. D., Baltimore, Md.; Fisher, S. G., Port Deposit, Md.; From, F. J., Templeton, Iowa; Flint, Austin, New York City; Farnham A. B., Milwaukee, Wis.

Gaff, John V., Portland, Ore.; Green, W. F., Brookeville, Md.; Globe Manufacturing Co., Battle Creek, Mich.; Gould, Geo. M., Philadelphia, Pa.

Hummel, A. L., Philadelphia, Pa.; Heuel, Emil, New York City; Hill, John, Vincennes, Ind.

Johnson, W. B., Paterson, N. J.; Jelks, J. T., Hot Springs, Ark.; Hollock, C. W., Charleston, S. C.; Johnson, H. L. E., Washington, D. C.

Lord & Thomas, Chicago, Ill.; Lyons, J. A., Bear Creek, Wis.; Lehn & Fink, New York City.

Moffit-West Drug Co., St. Louis, Mo.; Mattel, Wendel, West Saginaw, Mich.; Moore, W. T., Ludington, Mich.; Macdonald, J. W., Minneapolis, Minn.; Marshall, T. E., Union City, Tenn.

National Vaccine Establishment, Washington, D. C.

Post-Graduate Medical School, New York, N. Y.

Rudy, Martin, Lancaster, Pa.; Roy, Dunbar, Atlanta, Ga.; Ryder, C. C., San Francisco, Cal.; Rice, Geo. H., Sandoval, Ill.

Stewart, J. C., Minneapolis, Minn.; Stewart, W. Blair, Atlantic City, N. J.; Simon, F., Craig, Neb.; Smith, Q. C., Austin, Texas; Stokes, W. B., Cold Water, Ky.; Subscription News Co., Chicago, Ill.; Stockdale, T. P., Rural Valley, Pa.; San Francisco News Co., San Francisco, Cal.; Stewart, J. G., Walurba, Pa.; Simpson, J. H., Akron, Ohio; Sundberg, John C., Bagdad, Turkey.

Tuley, H. E., Louisville, Ky.

Vaughan, G. T., Berlin, Germany.

Wurdemann, H. V., Milwaukee, Wis.; Wainright, J. M., Hartford, Conn.; Wyckoff, R. M., Brooklyn, N. Y.; Winslow, Randolph, Baltimore, Md.